

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,481 DTD \_\_\_\_\_

CHANGE NO: 296

MODEL: 22-2 (Convair "880")


TITLE: Specification Administrative Change (Addition of Observer's Seat to Interchangeability List)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
O	O	

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	 ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 296

Title: Specification Administrative Change (Addition of Observer's  
Seat to Interchangeability List)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 125, Paragraph 3.23.1 EQUIPMENT INTERCHANGEABILITY:

Add the following item under "2. Interchangeability Without  
Alterations: "

"Observer's Seat Assembly"

Effect on Weight Empty: O  
Effect on Balance: O  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,480 DTD \_\_\_\_\_

CHANGE NO: 295A

MODEL: 22-2 (Convair "880")


TITLE	Specification Administrative Change (Revision to Part Number of Airspeed Indicator)
-------	---

ORIGIN:	Convair initiated based on Kollsman letter dated 22 December 1959
---------	---

REASON FOR CHANGE:	Product improvement, and revision to CCP No. 295.
--------------------	---

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0      °      INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *	None
-------------------------------------	------

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	<div style="text-align: center;">                       ENGINEERING APPROVAL                 </div>
---	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 295A

Page 1 of 2

Title: Specification Administrative Change (Revision to Part Number of Airspeed Indicator)

Origin: Convair initiated based on Kollsman letter dated 22 December 1959

Reason for Change: Product improvement, and revision to CCP No. 295.

Description of Change:

Page A-9, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "Kollsman Integrated Instrument System" as follows:

<u>From:</u> "2 Indicator, Airspeed-Angle-of-Attack	Kollsman	A29297-10 plus range markings"
---	----------	--------------------------------

<u>To:</u> "**2 Indicator, Airspeed, Angle of Attack	Kollsman	A32707-10-023
--	----------	---------------

**2 Indicator, Airspeed, Angle of Attack	Kollsman	B32707-10-023
--	----------	---------------

***2 Indicator, Airspeed, Angle of Attack	Kollsman	B34627-10-023"
---	----------	----------------

Add the following to the bottom of Page A-9:

\*Applicable to Airplanes 1 through 4.

\*\*Applicable to Airplanes 5 through 9.

\*\*\*Applicable to Airplanes 10 through 13.

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



The following shall not appear in the specification language:

Appendix I-C of specification currently list the part number of subject instrument as "A29297-10 plus range markings".

Delta Letter, File 142, dated 29 February 1960 approved part number change of this instrument to "A32707-10-023".

The changes which revise the part number from "A32707-10-023" to "B32707-10-023" as outlined by Kollsman, are as follows:

1. New mounting of Synchrotel and induction motor; plates and posts are replaced with a casting (body mounting Synchrotel).
2. Added three bosses on casting (body airspeed mechanism) for mounting of body mounting Synchrotel. Added one boss for set screw to hold new adjustable pivot shaft for jewel in Synchrotel pinion.
3. New eccentric jewel shaft for sector on rocking shaft.
4. New in tallation adjustment for angle-of-attack section.
5. Redesign of Synchrotel with new slip rings and brushes.
6. Added slip clutch on induction motor shaft.
7. Added nylon bushing in front plate for shaft of angle-of-attack section.
8. New back plate for mounting of brush block.
9. Unit B34627-10-023 contains a new improved maximum allowable airspeed mechanism and an improved angle-of-attack servo mechanism.

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,479 DTD \_\_\_\_\_

CHANGE NO: 294

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to P/N of Static System Selector Valve)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **Product improvement**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: center;"><i>B. J. Simon</i> ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	<p>EFFECT ON PRICE PER AIRPLANE:</p> <p>RECURRING: _____</p> <p>NON-RECURRING: _____</p> <p>TOTAL: _____</p>
---------------------	--

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 294

Title: Specification Administrative Change (Revision to P/N of  
Static System Selector Valve)

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page A-9 - INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "Kollsman Integrated Instrument  
System" as follows:

<u>From:</u>	"2 Valve Static System Selector	Republic	5-1357-2"
<u>To:</u>	2 Valve, Static System Selector	Republic	1-2560-10"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,478 DTD \_\_\_\_\_

CHANGE NO: 293

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Clarification of Fuel Strainer Installation)**

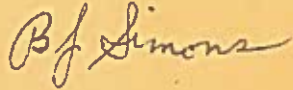
ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of the specification**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	  <b>ENGINEERING APPROVAL</b>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 293

Title: Specification Administrative Change (Clarification of  
Fuel Strainer Installation)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 52, Paragraph 3.12.9.8 - STRAINERS AND FILTERS:

Revise the paragraph title and paragraph to read as follows:

"STRAINERS: An 8-10 mesh screen shall be installed at inlet of  
each jettison, boost and transfer pump".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003 .

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,477 DTD \_\_\_\_\_

CHANGE NO: 292

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Delete Color Coding and Directional Arrows from Engine Fluid System Hoses and Tubing)

ORIGIN: Convair initiated

REASON FOR CHANGE: General Electric states that these features are unnecessary.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: right;"><i>Donald J. [Signature]</i> 10/3</p> <p style="text-align: right;">ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 292

Title: Specification Administrative Change (Delete Color Coding and Directional Arrows from Engine Fluid System Hoses and Tubing)

Origin: Convair initiated

Reason for Change: General Electric states that these features are unnecessary.

Description of Change:

Page 14, Paragraph 3.2.2.1 COLOR CODING:

Change the period at the end of first sentence to a comma, and add the following:

", except for fluid system hoses and tubing installed on engine by engine manufacturer."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,476 DTD \_\_\_\_\_

CHANGE NO: 291A

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to Shockmount and Temperature Selector Language)



ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification, and revision to CCP No. 291.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	   <p>ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 291A

Title: Specification Administrative Change (Revision to Shockmount and Temperature Selector Language)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification, and revision to CCP No. 291.

Description of Change:

Page 94, Paragraph 3.17.1.5 RADIO AND ELECTRONIC EQUIPMENT COMPARTMENT:

Revise the ninth sentence as follows:

From: "Non-deteriorating type metal shockmounts shall be used throughout and shall be readily removable from structure."

To: "Isolation shockmounts may be used throughout which shall be readily removable from structure."

Page 119, Paragraph 3.20.1.10.1 TEMPERATURE SELECTOR:

Revise the third sentence as follows:

From: "The temperature selector shall be graduated in ten increments."

To: "Two temperature selectors shall be installed, one for the flight compartment and one for the passenger compartment. The selectors shall operate in a clockwise direction to increase temperature, and shall be divided into ten equal spaces from the nine o'clock position to the three o'clock position."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,572 DTD 11 April 1961

CHANGE NO: 290

MODEL: 22-2 (Convair "880")

TITLE: Certification with Anti-Skid System Inoperative

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: As above

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* The effect on performance will be shown in Flight Manual after airplane is certified.

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines  
Change No. 290

Title: Certification with Anti-Skid System Inoperative

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: As above

Description of Change:

Page 16, Add the following new paragraph to the page, after Paragraph 3.2.8.1:

"3.2.8.2 ANTI-SKID DEVICES: The airplane shall be certified for use with anti-skid devices inoperative. Such certified landing and takeoff distances may not equal guaranteed values."

Effect on Weight Empty: 0

Effect on Balance: 0

Effect on Performance: As noted on cover sheet.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,475 DTD \_\_\_\_\_

CHANGE NO: 289

MODEL: 22-2 (Convair "880")

TITLE Specification Administrative Change (Delete switch guard)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE.

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 289

Title: Specification Administrative Change (Delete switch guard)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 78, Paragraph 3.16.8.5.1 CONTROLS:

Delete the fifth sentence "(Both switches shall be protected by a guard.)"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,502 DTD 19 January 1960

CHANGE NO: 288

MODEL: 22-2 (Convair "880")

TITLE: Control System, Electrical, Modification of

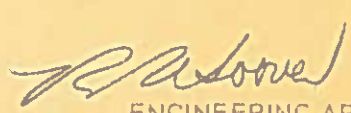
ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>Negligible</u>	<u>Negligible</u>	<u>Negligible</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED. \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 288

Title: Control System, Electrical, Modification of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above

Description of Change:

Page A-3, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Revise the below item in the Description List as follows:

From: "4 Control Panel-Regulator (a-c) Gen. Electric 3S2781F125A1"

To: "4 Control Panel-Regulator (a-c) Gen. Electric (P/N to be supplied)"

Effect on Weight Empty: Negligible

Effect on Balance: Negligible

Effect on Performance: None

The following shall not appear in the specification language:

This proposal consists of providing feeder fault protection with a reset feature incorporated in the generator control panel. The modification of the panel will be accomplished by General Electric. The modified panel will have identical mounting provisions and electrical connections as present panel.



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,473 DTD \_\_\_\_\_

CHANGE NO: 287

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Delete one microphone from Appendix I-C)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of the specification.**

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 287

Title: Specification Administrative Change (Delete one  
microphone from Appendix I-C)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification

Description of Change:

Page A-5, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "INTERPHONE SYSTEM (FLIGHT)" as  
follows:

<u>From</u> :	"4 Microphones	Telephonics	RS-38E"
<u>To</u> :	"3 Microphones	Telephonics	RS-38E"

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,472 DTD \_\_\_\_\_

CHANGE NO.: 286

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to Essential D-C Power Control, and Fire Detector System)

ORIGIN: Convair initiated.


REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 286

Title: Specification Administrative Change (Revision to Essential D-C Power Control, and Fire Detector System)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 96, Paragraph 3.17.1.7.1 - D-C POWER CONTROL:

Revise the fourth sentence as follows:

From: "The dc power controlled by the "Essential" switch shall supply the No. 2 VHF communication equipment, the No. 1 VHF navigation equipment and the HF equipment".

To: "The d-c power controlled by the "Essential" switch shall supply the No. 1 VHF communication equipment and the No. 1 VHF navigation equipment".

Page 112, Paragraph 3.19.4.2.1 - GENERAL:

Revise the first sentence to read as follows:

"Single loop, discrete sensing, continuous-type fire detectors shall be installed in the nacelles, including the engine compressor-accessory section and the engine burner and turbine section".

Add the following in the left margin opposite Paragraph 3.19.4.2.1:

"9/120A"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,440 DTD 3 December 1959

CHANGE NO: 285

MODEL: 22-2 (Convair "880")

TITLE: **Total Fuel Quantity, Increase of**

ORIGIN: **TWA requested and Convair proposed for Delta**

REASON FOR CHANGE: **As above**

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

**Negligible**

**Negligible**

**Negligible**

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simon*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 285

Title: Total Fuel Quantity, Increase of

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: As above.

Description of Change:

This proposal has no effect on specification language since the 100 gallons total fuel increase proposed by this change falls within the specification tolerance.

This change is applicable to Delta airplanes 6 through 10.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,468 DTD \_\_\_\_\_

CHANGE NO: 283

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Delete Cargo Fire Detector)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To clarify the intent of the specification.**

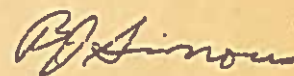
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 283

Title: Specification Administrative Change (Delete Cargo Fire Detector)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 89, Paragraph 3.16.7.1 - EMERGENCY POWER:

Delete the below item under "Warning", and renumber the remaining  
items 1 through 6:

"1. Cargo Fire Detector:"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,442 DTD 11 December 1959

CHANGE NO: 282

MODEL: 22-2 (Convair "880")

TITLE: Right Hand Club Area Table, Modification of


ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: To eliminate the present requirement for stowage of table during take-off and landing.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+2.0 lb	+2.0 lb	+882 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 282

Title: Right Hand Club Area Table, Modification of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: To eliminate the present requirement for stowage  
of table during take-off and landing.

Description of Change:

This proposal has no effect on specification language and consists of adding molded or equivalent padding to the edges of the club area card table. This padding will be of firm density "ensolite" having visible surfaces coated with wear resistant vinyl.

Above materials will be specified in the Customer Interior Finish Specification.

Effect on Weight Empty: +2.0 pounds  
Effect on Balance: +882 inch-pounds  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,469 DTD \_\_\_\_\_

CHANGE NO: 284

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Change Emergency Brake Cylinder from 400 to 300 Cubic Inches)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **Replacement of the fiber glass air flask (2,200 psi) with the ICC steel flask (3,000 psi) made it necessary to reduce the cylinder volume from 400 to 300 cubic inches.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY  0	OPER. WT. EMPTY  0	0  INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simon*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 284

Title: Specification Administrative Change (Change Emergency  
Brake Cylinder from 400 to 300 Cubic Inches)

Origin: Convair initiated

Reason for Change: Replacement of the fiber glass air flask  
(2,200 psi) with the ICC steel flask  
(3,000 psi) made it necessary to reduce  
the cylinder volume from 400 to 300 cubic  
inches.

Description of Change:

Page A-17 - APPENDIX I-C - PNEUMATIC EQUIPMENT:

Revise the below item in the Description List as follows:

<u>From:</u>	"2 Emergency Air Storage Flasks	P/N to be supplied"
<u>To:</u>	"1 Bottle and Drain Fitting, Pneumatic, 3,000 PSI, 300-Cubic Inch	Walter 891545" Kidde

Enclosure: (A) One copy of Convair Graph - MAIN WHEEL EMERG BRAKE  
STORAGE PRESSURE VS APPLICATIONS (For information only)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 284

The following shall not appear in the specification language:

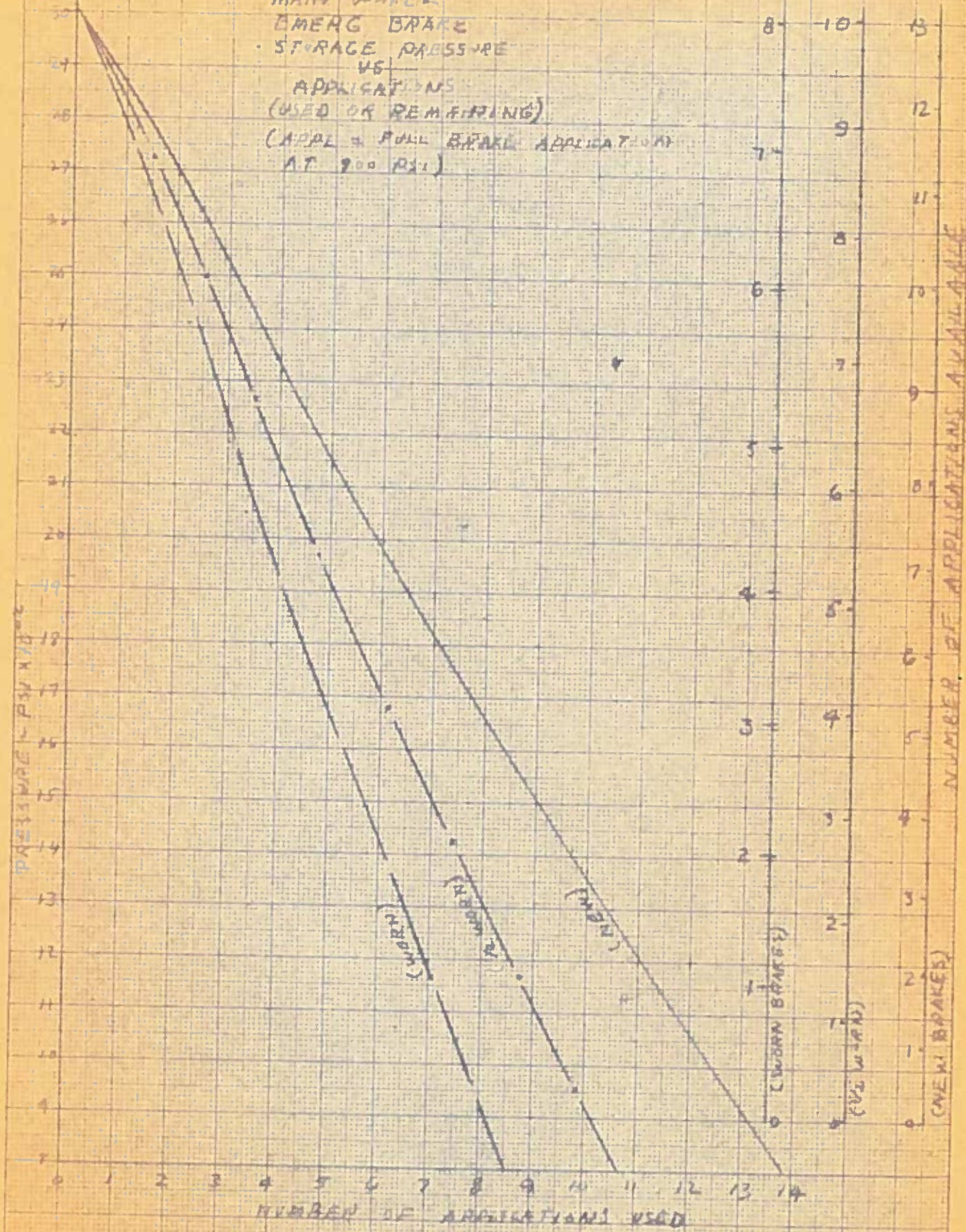
The markings on the gage of the 300 - cubic inch bottle denote the following:

Green Arc (Operating Range)	1,600 to 3,000 lbs
Red Line (Maximum Charge)	3,040 lbs
Yellow Radial Line (One Application)	*1,200 lbs

\*NOTE: Airplane not to take off under this condition.



MOD 22  
 MAIN WHEEL  
 EMERG BRAKE  
 STORAGE PRESSURE  
 VS  
 APPLICATIONS  
 (USED OR REMITTING)  
 (APPL & FULL BRAKE APPLICATION  
 AT 900 PSI)



END  
 11/9/59



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,443 DTD 11 December 1959

CHANGE NO: 281

MODEL: 22-2 (Convair "880")

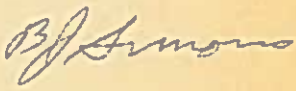
TITLE: Cushioned Head Rest for Aft Facing Stewardess, Installation of

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: As above.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+3.0 lb	+3.0 lb	+2,378 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 281

Title: Cushioned Head Rest for Aft Facing Stewardess, Installation of

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: As above.

Description of Change:

Page 104, Paragraph 3.19.1.1.4 CABIN ATTENDANTS' SEATS:

Add the following to the end of the paragraph:

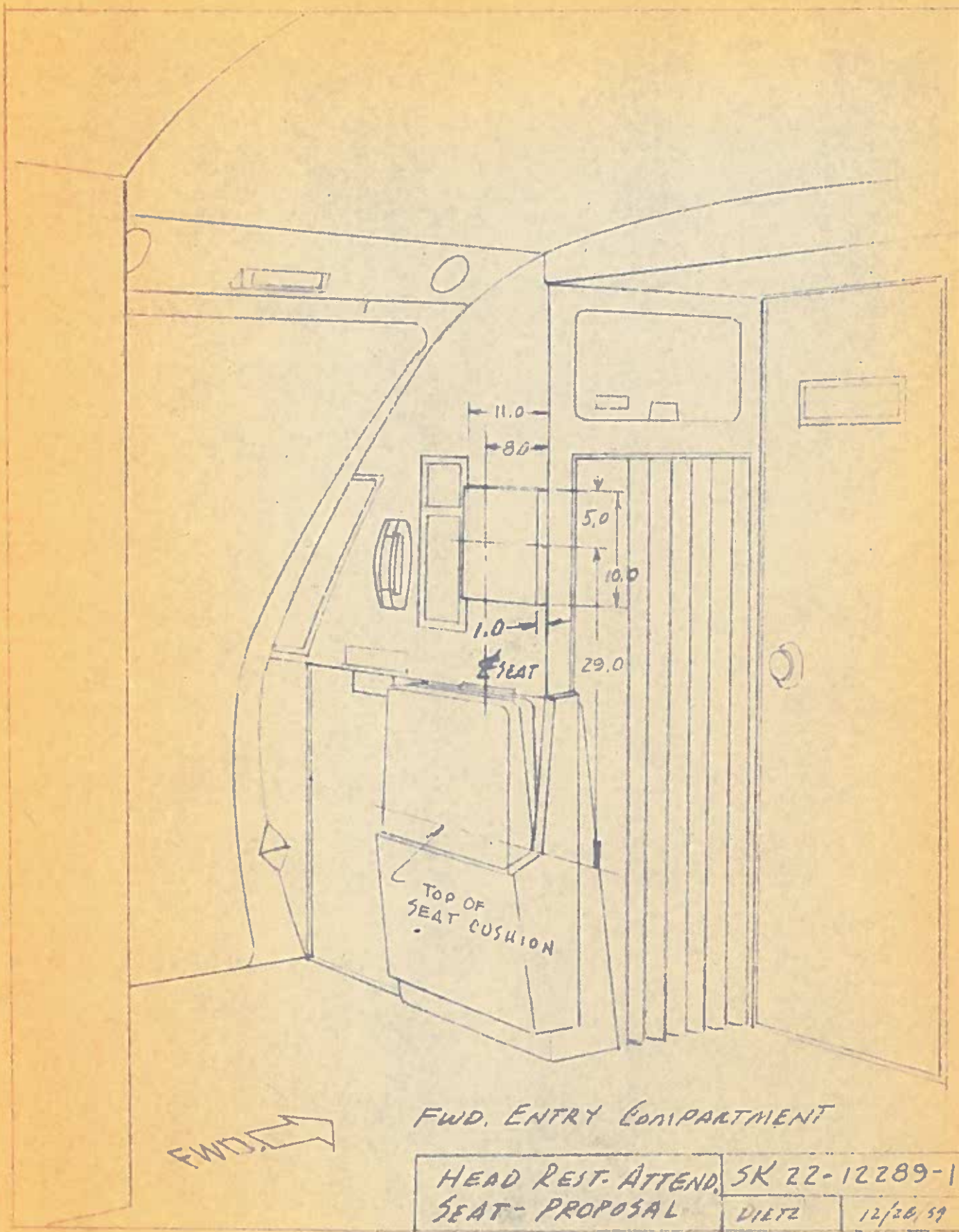
"An upholstered, detachable head rest shall be installed, one each on the aft face of the forward left hand coat compartment and on the left hand aft bulkhead for use of the aft facing cabin attendants."

- ENCLOSURES: (A) Convair Sketch - HEAD REST, ATTENDANT SEAT, FWD. ENTRY COMPARTMENT (For information only.)
- (B) Convair Sketch - HEAD REST, ATTENDANT SEAT, AFT ENTRY COMPARTMENT (For information only.)

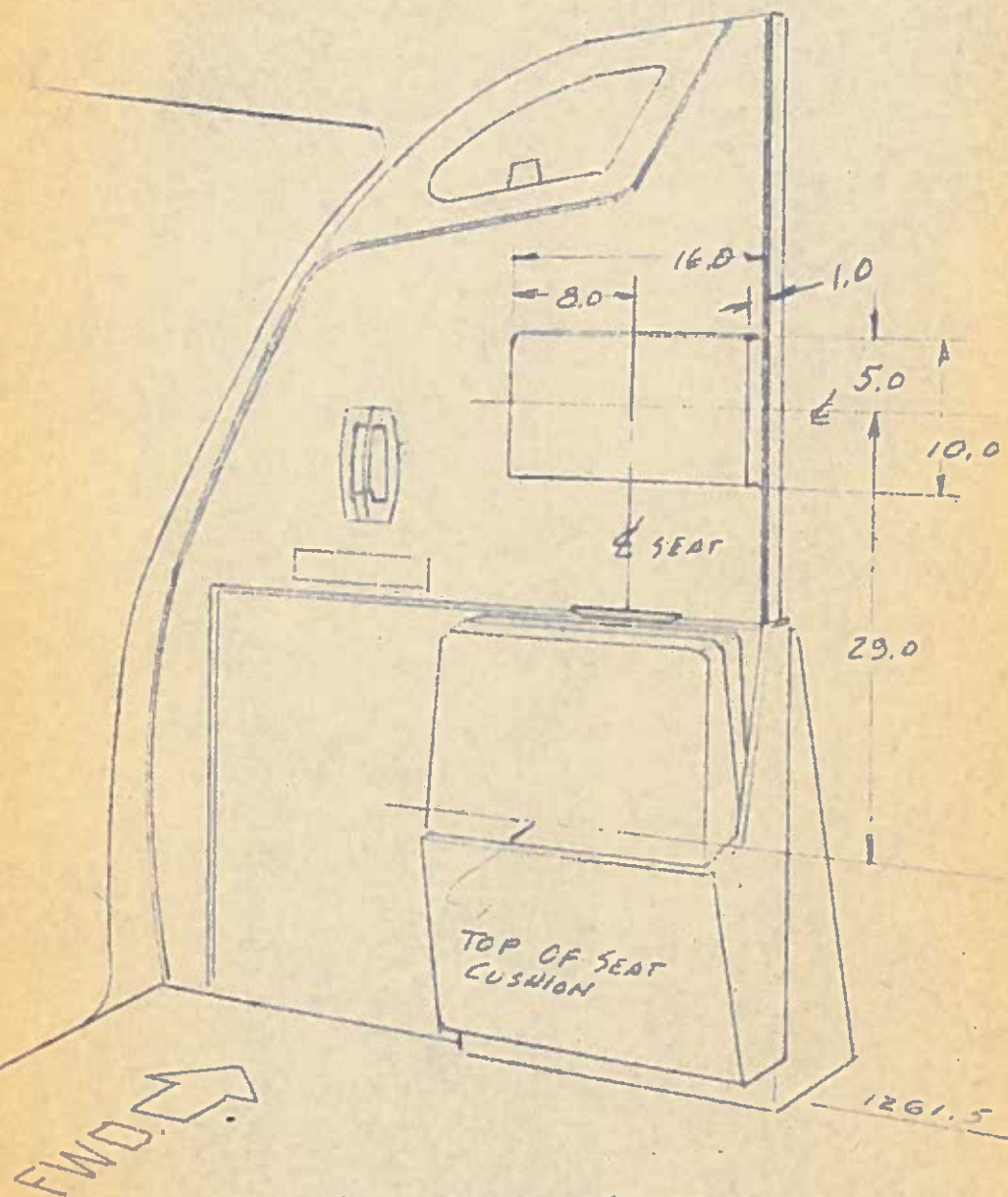
Effect on Weight Empty: +3.0 pounds  
Effect on Balance: +2,378 inch-pounds  
Effect on Performance: None

The following shall not appear in the specification language:

The head rests will be fabricated of upholstered "ensolite" (medium density) and attached with snap fasteners or equivalent. The aft head rest will measure approximately 1" x 10" x 16", the forward head rest will measure approximately 1" x 10" x 11" (width of this head rest is limited by proximity of handset to centerline of seat).







AFT ENTRY COMPARTMENT

HEAD REST - ATTEND. SEAT - PROPOSAL.	SK 22-12289-2	
	DIETZ	12/10/59



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,467 DTD \_\_\_\_\_

CHANGE NO: 280

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Clarification of Service Interphone Location)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To specify service interphone station in the drinking water tank area in lieu of the air conditioning compartment.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 280

Title: Specification Administrative Change (Clarification of  
Service Interphone Location)

Origin: Convair initiated.

Reason for Change: To specify service interphone station in the  
drinking water tank area in lieu of the air conditioning compartment.

Description of Change:

Page 98, Paragraph 3.17.2.3.5 SERVICE INTERPHONE:

Revise the below item under service interphone stations as  
follows:

From: "Air Conditioning Compartment"

To: "Drinking Water Tank Area"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,466 DTD \_\_\_\_\_

CHANGE NO: 279

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Replacement of out-dated and illegible illustrations)


ORIGIN: Convair initiated.

REASON FOR CHANGE: To replace obsolescent and illegible illustrations.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,465 DTD \_\_\_\_\_

CHANGE NO: 278

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revised C.G. Limits Graph)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To incorporate an up to date Center of Gravity Limits Graph into specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*Bf Simon*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 278

Title: Specification Administrative Change (Revised C.G. Limits Graph)

Origin: Convair initiated.

Reason for Change: To incorporate an up to date Center of Gravity Limits Graph into specification.

Description of Change:

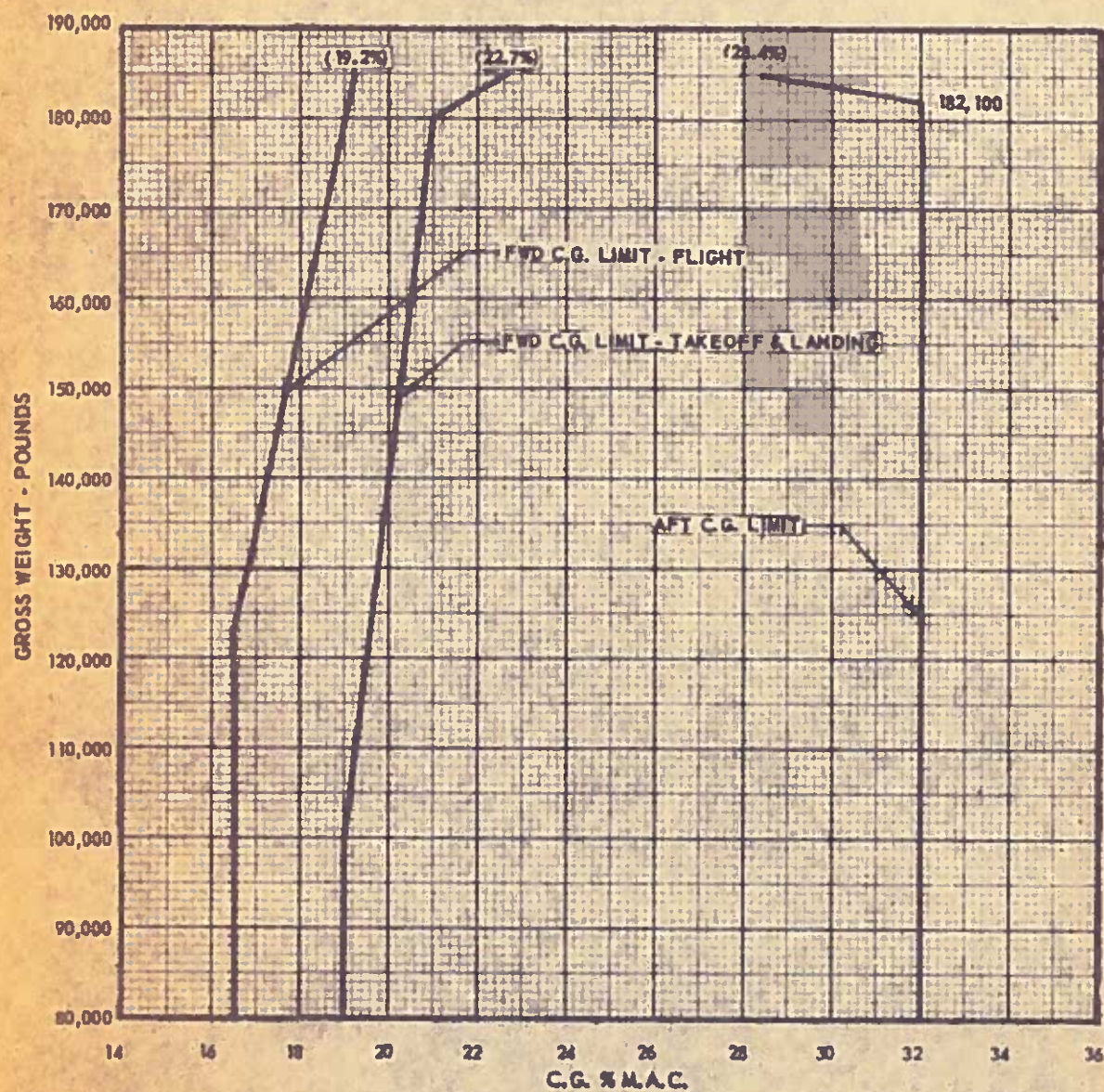
Page 12a, CENTER OF GRAVITY LIMITS

Replace above graph in specification with Enclosure: (A):

Enclosure: (A) One copy Page 12a, CENTER OF GRAVITY LIMITS  
(Revised)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None





CENTER OF GRAVITY LIMITS

5137C

FIGURE 3.1-1



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,439 DTD 20 November 1959

CHANGE NO: 277

MODEL: 22-2 (Convair "880")

TITLE: External Power Receptacle, Revision to

ORIGIN: Verbal request by C. J. MAY to S. J. HARRIS on 19 November 1959

REASON FOR CHANGE: Customer request.

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

+2.0 lb

+2.0 lb

+740 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simmons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 277

Title: External Power Receptacle, Revision to

Origin: Verbal request by G. J. MAY to S. J. HARRIS on 19 November 1959

Reason for Change: Customer request.

Description of Change:

Page A-3, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Add the following item to the "Description List" under "External Power Receptacle":

"1 Transformer Rectifier (28-Volt, D-C)	Gen. Electric	6RW105YF1"
--	---------------	------------

Effect on Weight Empty:	+2.0 pounds
Effect on Balance:	+740 inch-pounds
Effect on Performance:	None

The following shall not appear in the specification language:

This proposal consists of the installation of the following in the external power junction box:

- a. One G. E. No. 6RW105YF1 transformer rectifier.
- b. Two five-ampere limiters and blocks.

Above equipment will be stencil identified.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,409 DTD Revised 15 June 1959

CHANGE NO.: 276

MODEL: 22-2 (Convair "880")

TITLE: Performance Guarantees, Revision to

ORIGIN: Delta verbal request on 4 June 1959

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

As noted.

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Performance Guarantees, Revision to

Origin: Delta verbal request on 4 June 1959

Reason for Change: Customer request.

Description of Change:

Page 7, Paragraph 2.1 APPLICABLE FEDERAL REGULATIONS:

In the first line of second sentence, change "SR-422 adopted 23 July 1957" to "SR-422B adopted 29 August 1959".

In the third sentence, change "Civil Aeronautics Administration" to "Federal Aviation Agency".

Page 10, Paragraph 3.1.1.1 THE FOLLOWING PERFORMANCE OF THE AIRPLANE IS GUARANTEED:

Revise the below items under "GUARANTEED PERFORMANCE" as follows:

<u>From:</u>	<u>"Condition"</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
	Take-off distance at sea level over 50-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with a weight of 140,000 lb .....	ft	<u>+5%</u>	4,630
	Take-off distance at sea level over 50-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with a weight of 173,500 lb at lift off in standard air .....	ft	<u>+800</u>	7,610
	Take-off distance at sea level on 90°F day over 31 ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with weight of 173,500 lb at lift off .....	ft	<u>+850</u>	8,350
	Take-off distance at sea level over 31-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) on a 90-degree F day with weight of 160,000 lb .....	ft	<u>+5%</u>	6,820

<u>Condition</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
CAA landing distance (intended destination) at sea level over 50-ft obstacle in accordance with CAR 4b with weight of 132,800 lb .....	ft	<u>+5%</u>	6,000
Maximum allowable take-off weight at sea level in accordance with CAR 4b climb requirements (but this shall not preclude operation at 174,025 lb at the start of the take-off run) .....	lb		173,500
Maximum allowable landing weight at sea level in accordance with CAR 4b climb requirements .....	lb		132,800
Maximum CAR 4b en-route operating altitude with one engine inoperative and weight of 165,000 lb .....	ft	<u>+10%</u>	18,500
Maximum CAR 40 en-route operating altitude with two engines inoperative and weight of 140,000 lb .....	lb	<u>+10%</u>	16,000"

<u>To:</u>	<u>"Condition</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
	Take-off distance at sea level in accordance with SR-422B with a weight of 140,000 lb .....	ft	None	5,330 *
	Take-off distance at sea level in accordance with SR-422B with a weight of 173,500 lb .....	ft	<u>+5%</u>	7,500 *
	Take-off distance at sea level on 90°F day in accordance with SR-422B with a weight of 173,500 lb .....	ft	<u>+5%</u>	8,785 *



<u>Condition</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
Take-off distance at sea level on 90°F day in accordance with SR-422B with a weight of 160,000 lb .....	ft	±5%	7,430*

\*NOTE: The quoted take-off distance guarantees are based on FAA certification data prior to May 10, 1960. If the FAA should subsequently require recertification of the present certified performance data, the resulting differences in certified data shall be applied to the guarantees above. After application of such differences, if any, the resultant take-off distances shall not be greater than the distances prior to CCP No. 276 and based on CAR 4b, plus the increment due to changing the basis from CAR 4b to SR-422B which is calculated to be as follows:

<u>Condition</u>	<u>T.O. Distance (ft)</u>
140,000 lb Std. temp.	±5% 5,350
173,500 lb Std. temp.	±800 8,350
173,500 lb 90°F	±850 9,370
160,000 lb 90°F	±5% 7,840

<u>Condition</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
Landing distance (intended destination) at sea level in accordance with SR-422B with weight of 132,800 lb .....	ft	±5%	6,000
Maximum allowable take-off weight at sea level in accordance with SR-422B .....	lb		184,500
Maximum allowable landing weight at sea level in accordance with SR-422B .....	lb		132,800

<u>Condition</u>	<u>Units</u>	<u>Tolerance</u>	<u>Item</u>
Maximum en-route operating altitude with one engine in- operative in accordance with SR-422B and weight of 165,000 lb .....	lb	None	21,500
Maximum en-route operating altitude with two engines in- operative in accordance with SR-422B and weight of 140,000 lb .....	ft	None	18,000"

Page 11, under "STALL SPEED" change "CAA" to "FAA".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: As noted



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,436 DTD \_\_\_\_\_

CHANGE NO: 275

MODEL: 22-2 (Convair "880")

TITLE: Window Valance Lighting, Addition of Translucent Covers for

ORIGIN Convair initiated.

REASON FOR CHANGE: To make valance lighting more attractive.


EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+12.0 lb	+12.0 lb	+9,996 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 275

Title: Window Valance Lighting, Addition of Translucent Covers for

Origin: Convair initiated.

Reason for Change: To make valance lighting more attractive.

Description of Change:

Page 78, Paragraph 3.16.8.7 SIDE WINDOW LIGHTING:

Revise the first sentence as follows:

From: "Valance type fluorescent lighting, including a dimming feature, shall be installed at the cabin side windows."

To: "Valance-type fluorescent lighting, including a dimming feature and translucent covers, shall be installed at the cabin side windows."

Effect on Weight Empty: +12.0 pounds  
Effect on Balance: +9,996 inch-pounds  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,463 DTD \_\_\_\_\_

CHANGE NO.: 274

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to seat back movement pressure)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To provide seat breakover in accordance with CAM 4b. 362-6(c).

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J.H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 274

Title: Specification Administrative Change (Revision to seat back movement pressure)

Origin: Convair initiated.

Reason for Change: To provide seat breakover in accordance with CAM 4b. 362-6(c).

Description of Change:

Page 104 (Cont), Paragraph 3.19.1.1.6.1 SEAT BACK MOVEMENT:

Revise the paragraph to read as follows:

"Each reclining seat shall be designed so that pressure applied on the aft side of the seat-back will override the recline control lock without additional manual operation, and fold the seat-back forward to its normal upright position. This pressure on the seat-back shall not exceed 25 pounds. The seat-back shall fold further forward to approximately 30 degrees forward of the normal upright position (as defined below) without removal of the arm rests, by applying a load of not less than 30 pounds pressure or more than 35 pounds pressure on the aft side of the seat-back. Seat-back positions shall be as follows:

Normal Upright: 15 degrees aft of vertical

Recline: 38 degrees aft of vertical

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,462 DTD \_\_\_\_\_

CHANGE NO: 273

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to landing gear hydraulic system, and clarification of landing gear retraction)


ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 <b>ENGINEERING APPROVAL</b>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 273

Title: Specification Administrative Change (Revision to landing gear hydraulic system, and clarification of landing gear retraction)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 35, Paragraph 3.8.2.5 RETRACTING, EXTENDING AND LOCKING SYSTEMS;

Delete the paragraph and substitute the following:

"Landing gear retraction shall be accomplished hydraulically to a point where the gear is within the wheel well cavity and the landing gear doors are closed in a maximum of ten seconds with four engines operating. Under three-engine operation conditions, the gear retraction cycle shall not exceed 12 seconds."

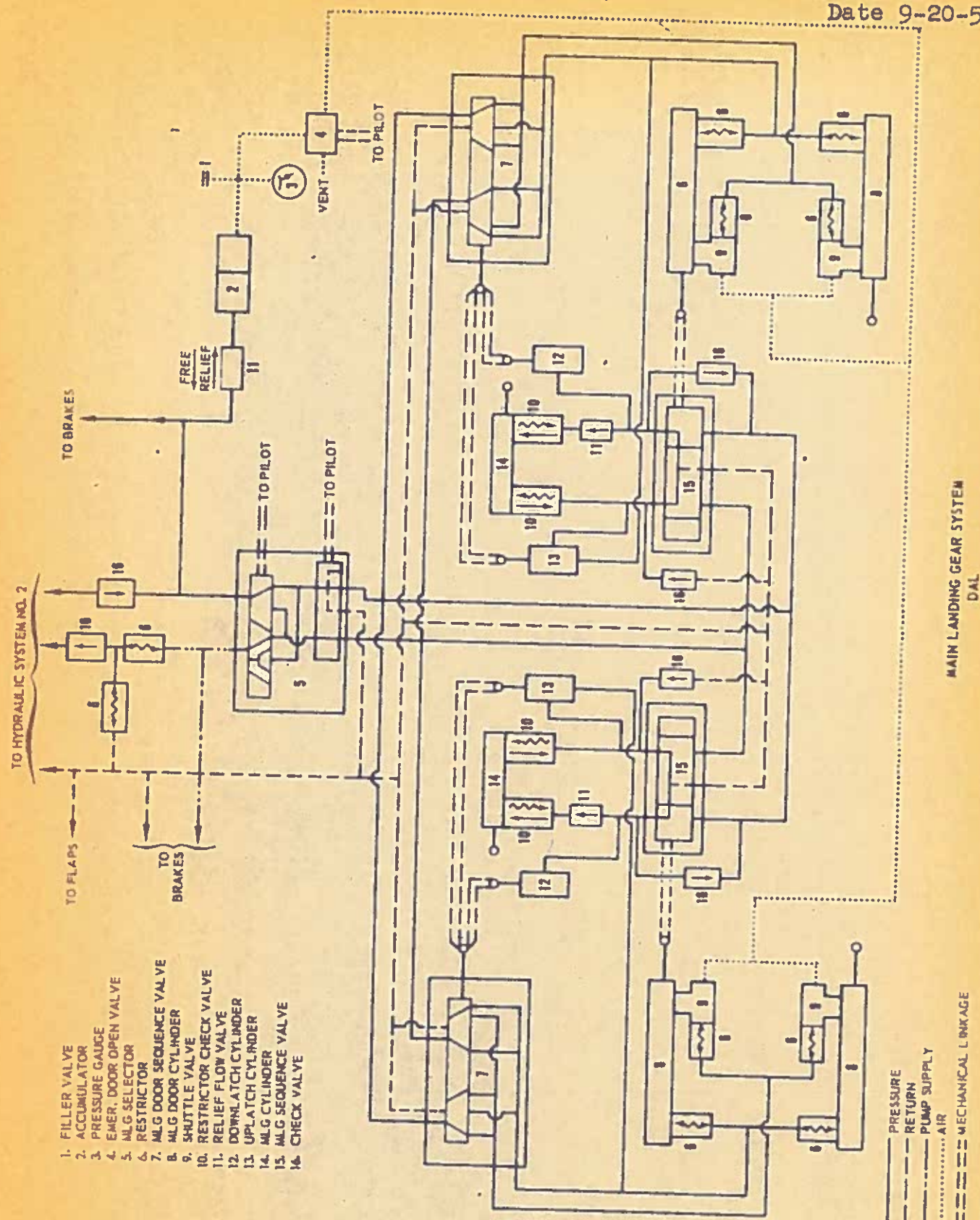
Enclosure: (A) One copy Page 38a - MAIN LANDING GEAR SYSTEM (Revised)  
(B) One copy Page 38b - WHEEL BRAKE (Revised)

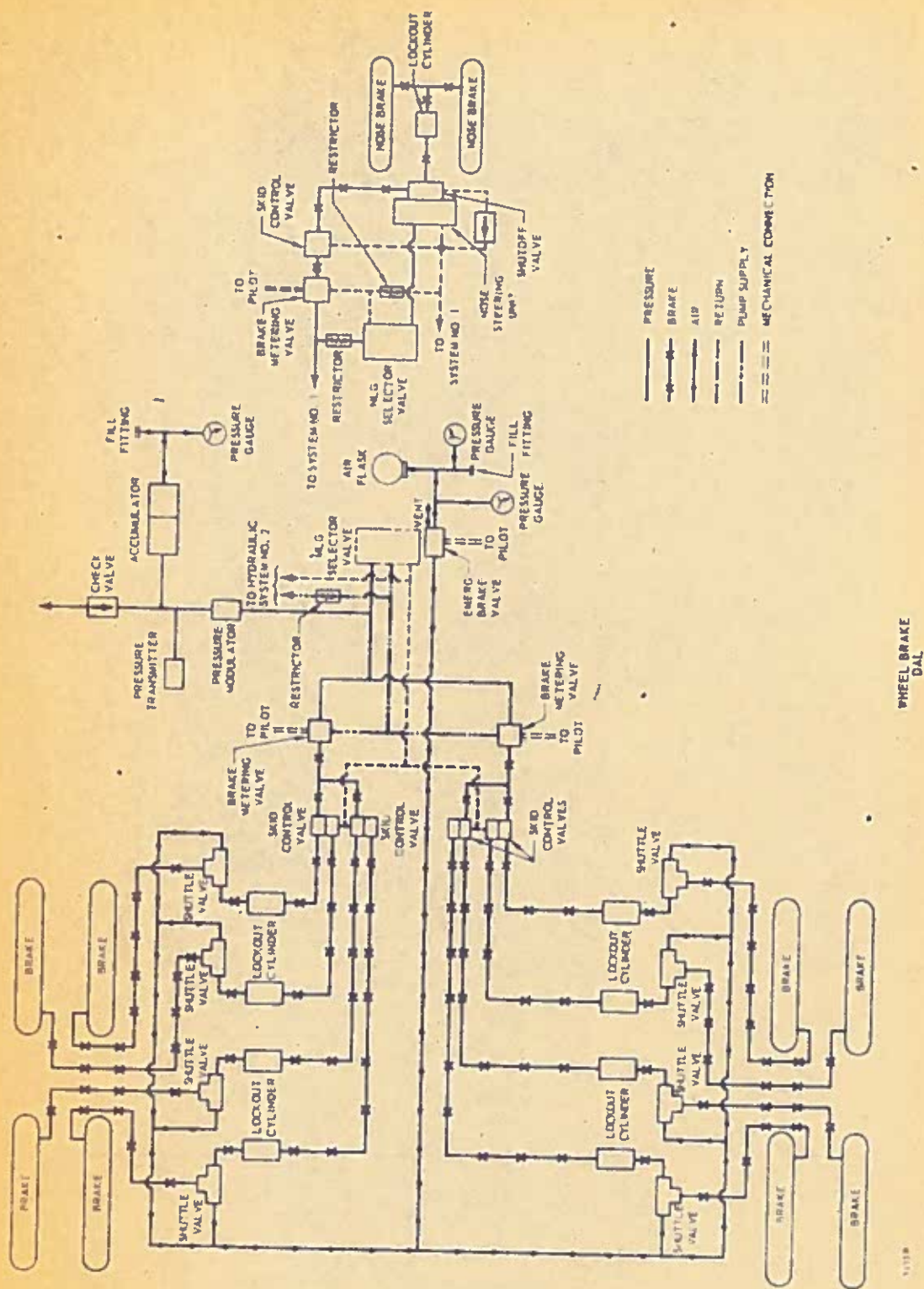
Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in specification language:

Enclosures (A) and (B) will be incorporated into specification on Customer approval of this proposal.









# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,460 DTD \_\_\_\_\_

CHANGE NO: 271

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to P/N of Fuel Flowmeter Transmitter)

ORIGIN: Convair initiated based on General Electric revision to subject part.


REASON FOR CHANGE: To incorporate an improved brush rigging in the synchro motor of the transmitter on five airplanes.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Negligible	Negligible	Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Specification Administrative Change (Replacement of out-dated and illegible illustrations)

Origin: Convair initiated.

Reason for Change: To replace obsolescent and illegible illustrations.

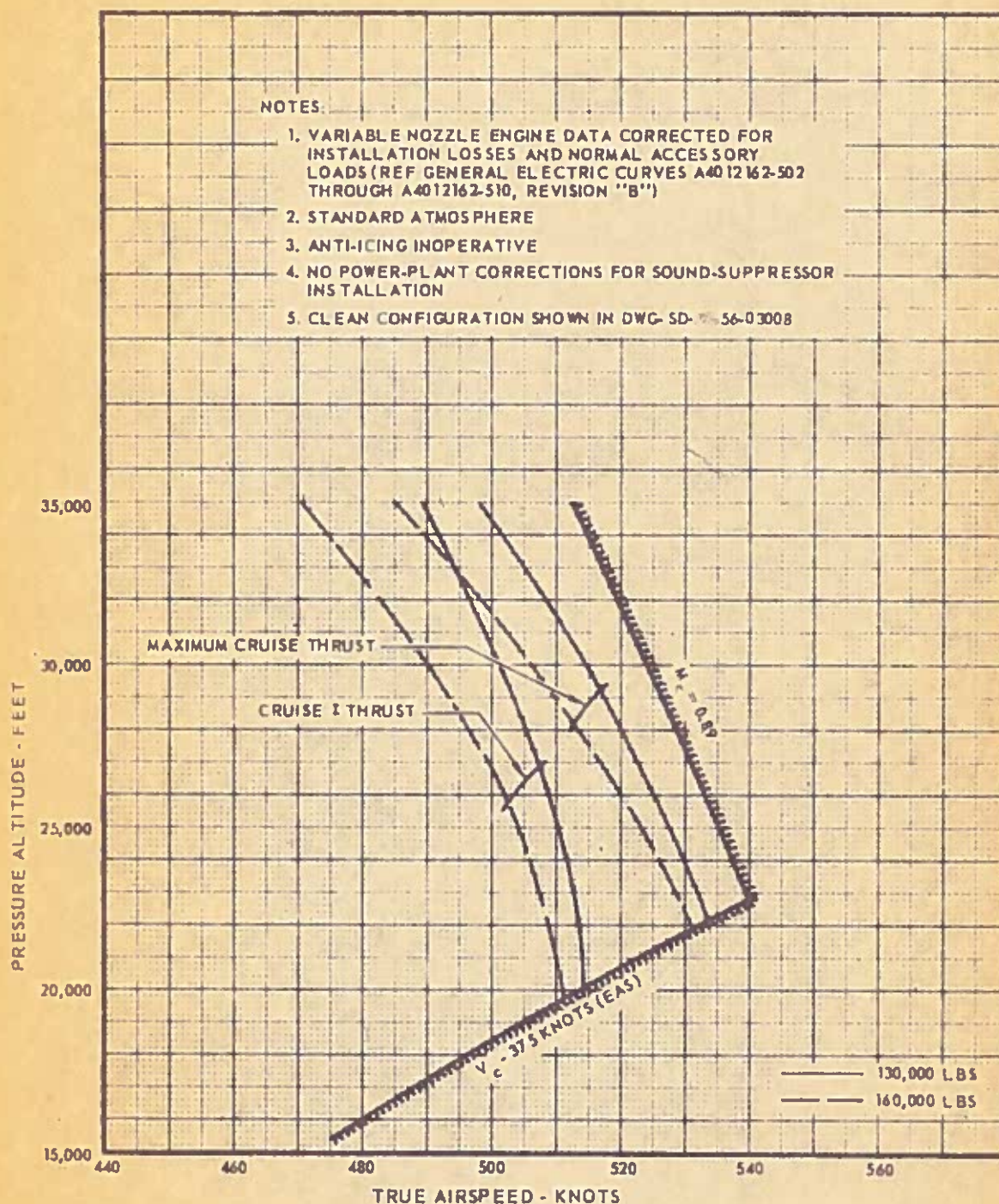
Description of Change:

Page 12C, FIGURE 3.1-3 - MAXIMUM LEVEL FLIGHT SPEEDS  
Page 56A, FIGURE 3.12-1 - ENGINE STARTING SYSTEM  
Page 62C, FIGURE 3.14-3 - FLIGHT ENGINEER'S PANEL  
Page 62D, FIGURE 3.14-4 - PILOT'S & COPILOT'S OVERHEAD CONTROL PANEL  
Page 89A, FIGURE 3.16-1 - A-C POWER SYSTEM  
Page 89B, FIGURE 3.16-2 - D-C POWER SYSTEM  
Page 102D, FIGURE 3.17-2 - PITOT STATIC SYSTEM  
Page 115A, FIGURE 3.19-1 - TEMPERATURE MEASUREMENT PLANE  
Page 122A, FIGURE 3.20-1 - AIR CONDITIONING PRESSURIZATION SYSTEM  
Page 122B, FIGURE 3.20-2 - ESTIMATED CABIN PRESSURE SCHEDULE  
Page 122C, FIGURE 3.20-3 - TEMPERATURE VS ALTITUDE  
Page 122D, FIGURE 3.20-4 - CABIN AIR CONDITIONING SYSTEM PERFORMANCE

One revised copy each of the above illustrations is attached hereto for Customer approval and subsequent incorporation into specification.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None





MAXIMUM LEVEL FLIGHT SPEEDS  
 FOUR GENERAL ELECTRIC CJ805 (J79) ENGINES



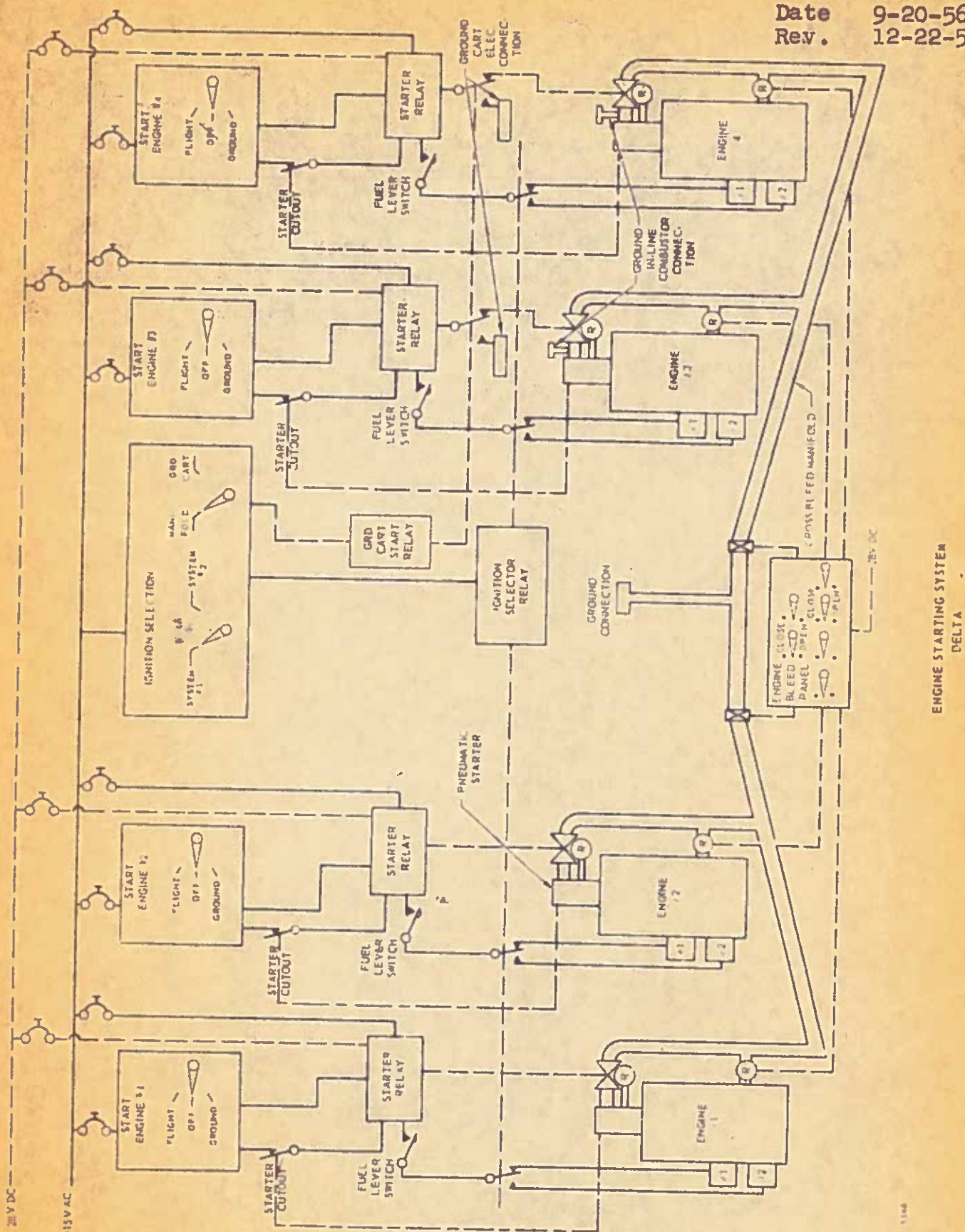
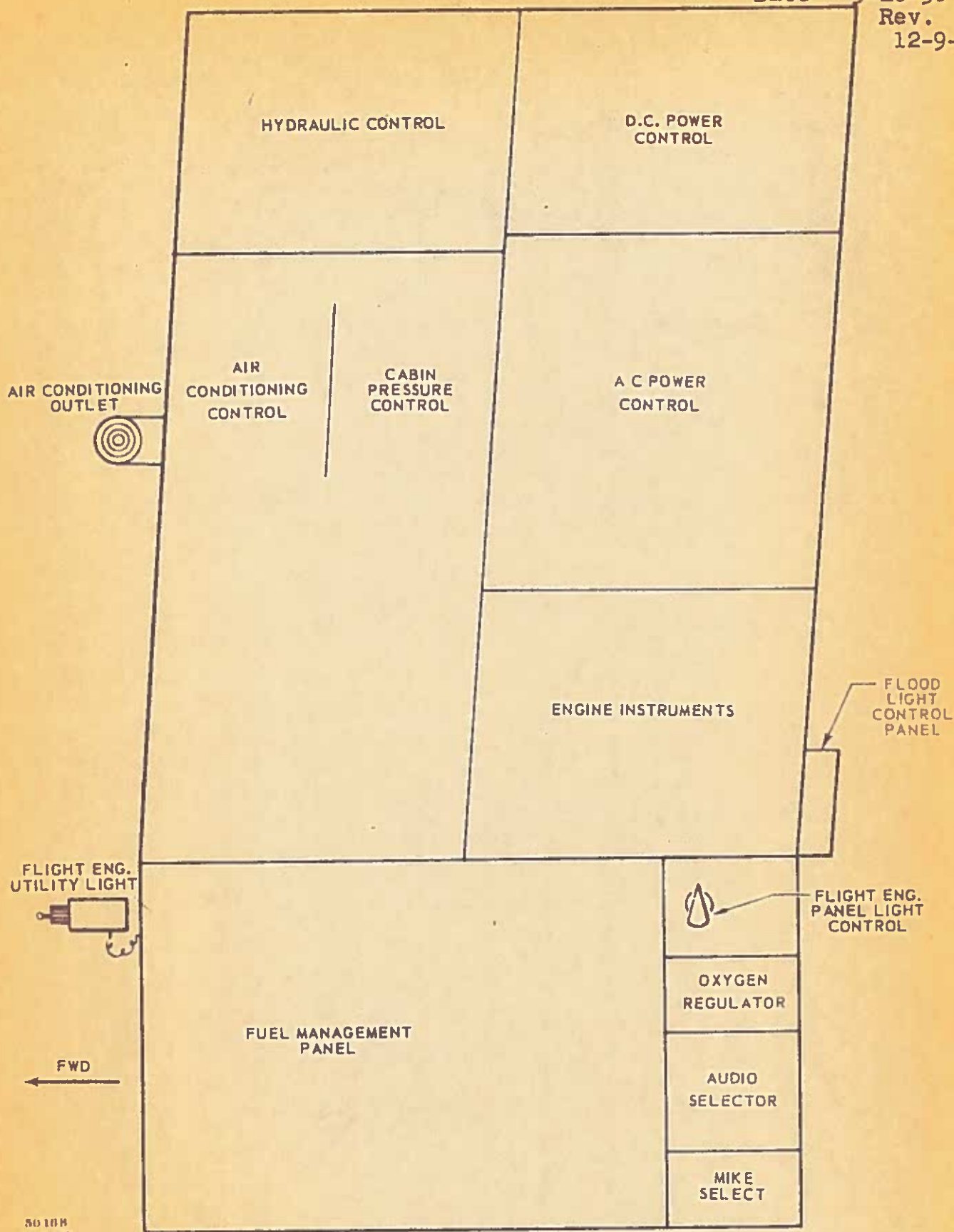


FIGURE 3.12-1





5010H  
 1-4-60

FLIGHT ENGINEER'S PANEL

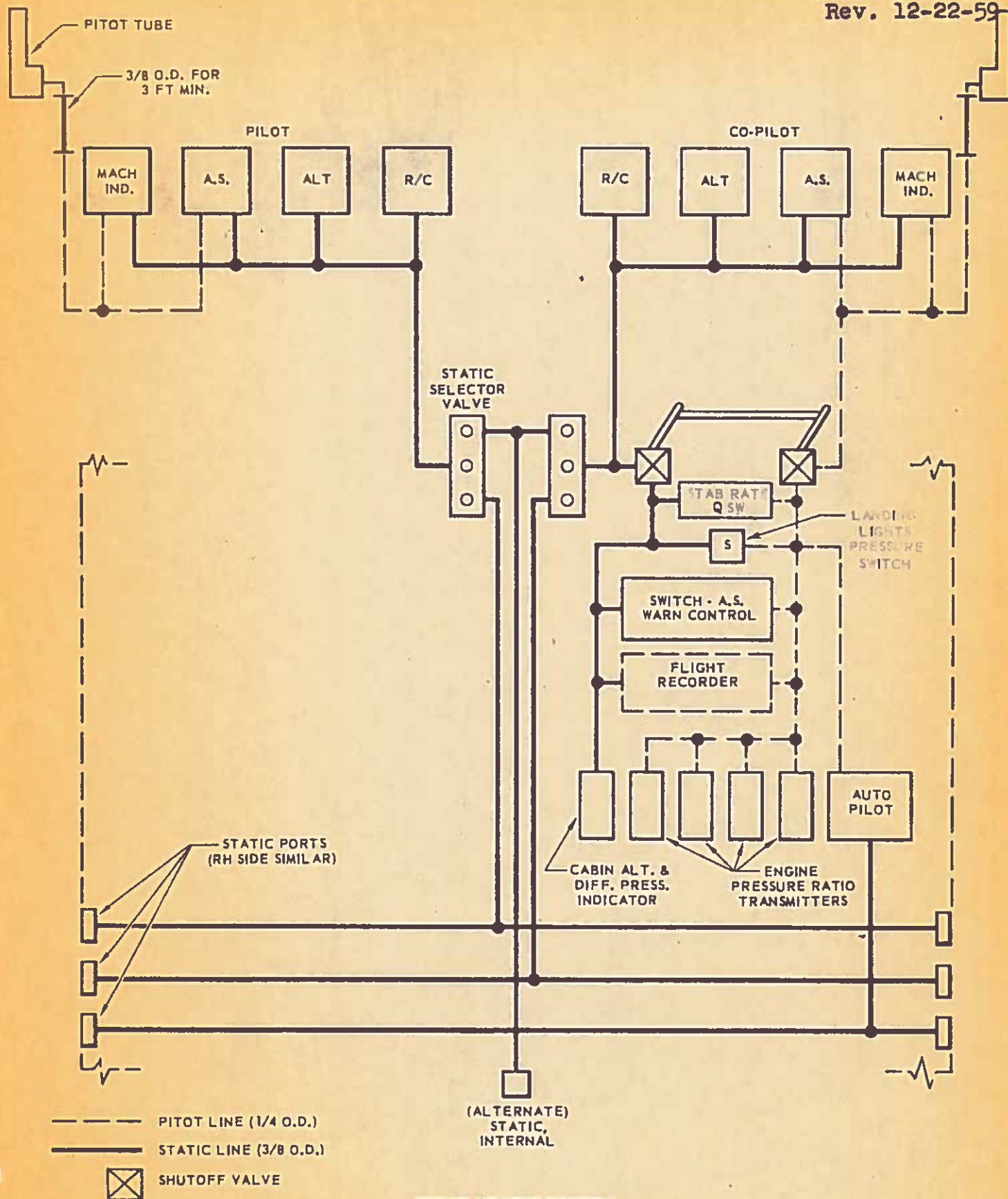
FIGURE 3.14-3

SPACE	SPACE	SPACE
ESSENTIAL BUS SELECTOR	RADIO FREQUENCY LIST	RADIO POWER SWITCHES
LEADING EDGE TEMP (DE-ICING)	(WING & TAIL) ANTI-ICE	EXCESS HEAT & ISOLATION
ENGINE ANTI-ICE	ENGINE BLEED	WINDSHIELD ANTI-ICE & ANTI-FOG
INTERIOR LIGHTS	ENGINE STARTERS	INTERIOR LIGHTS
MISC.	EXTERIOR LIGHTS	EXTERIOR LIGHTS

PILOT'S & CO-PILOT'S  
OVERHEAD CONTROL PANEL

FIGURE 3.14-4





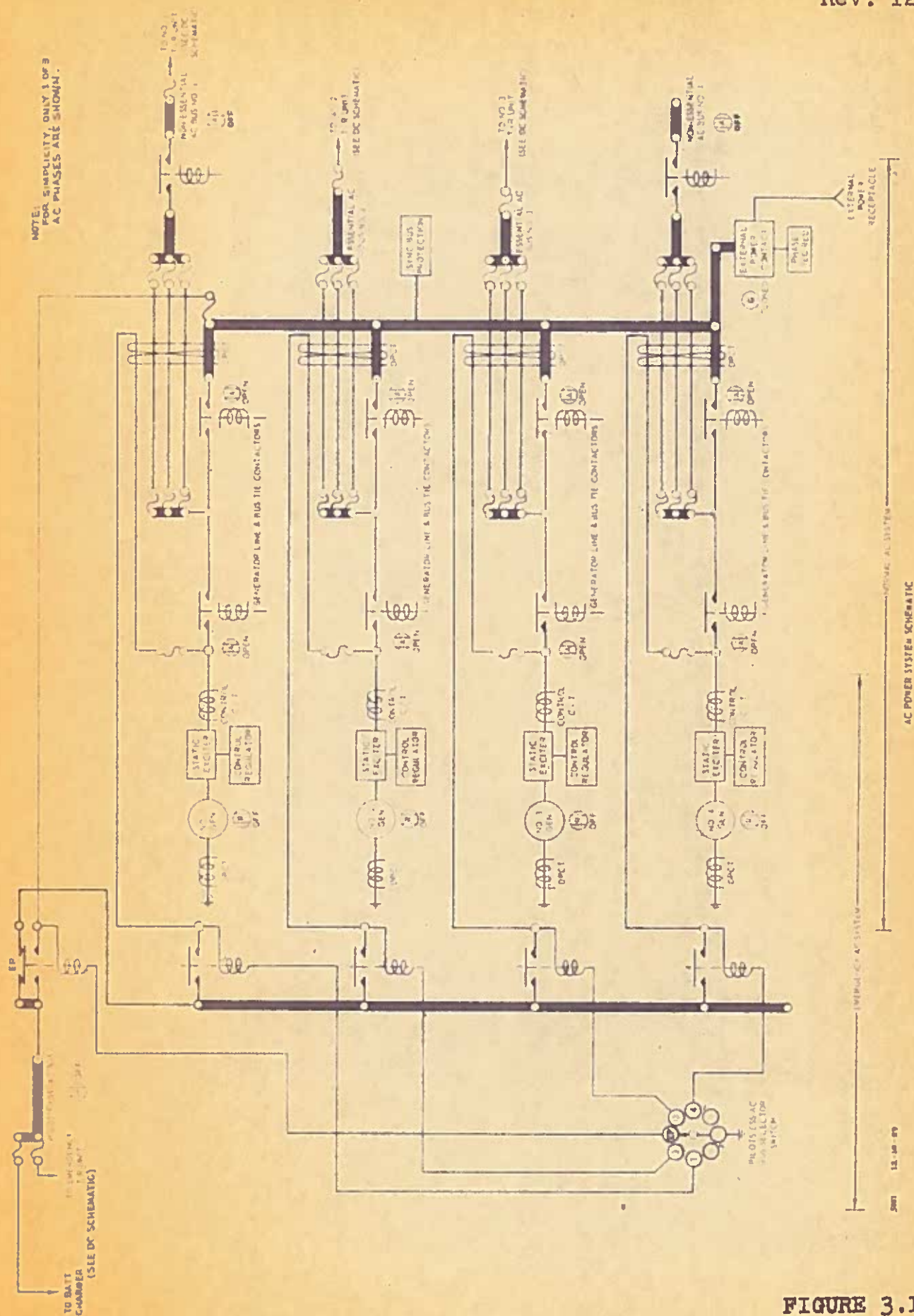


FIGURE 3.16-1



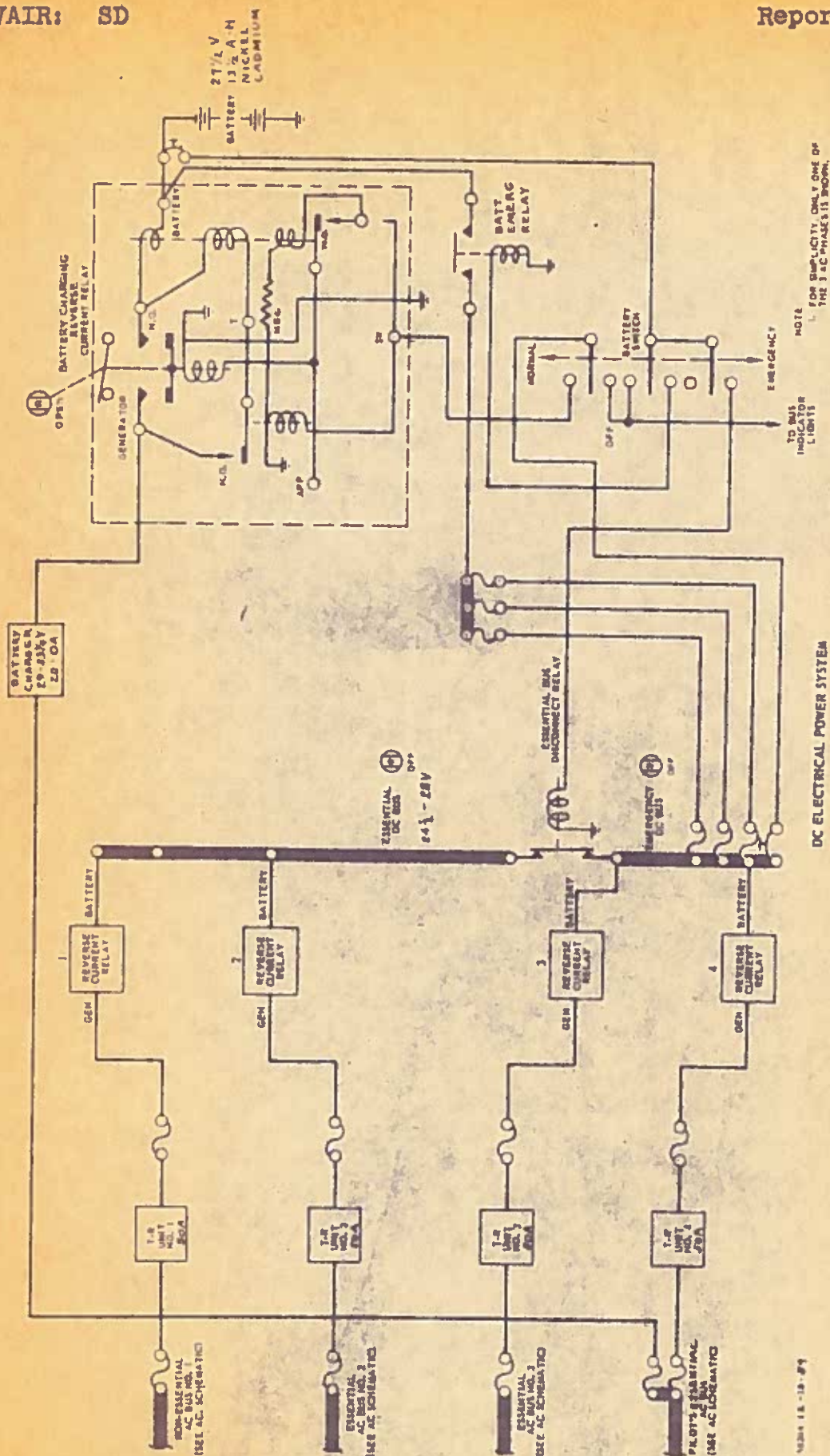
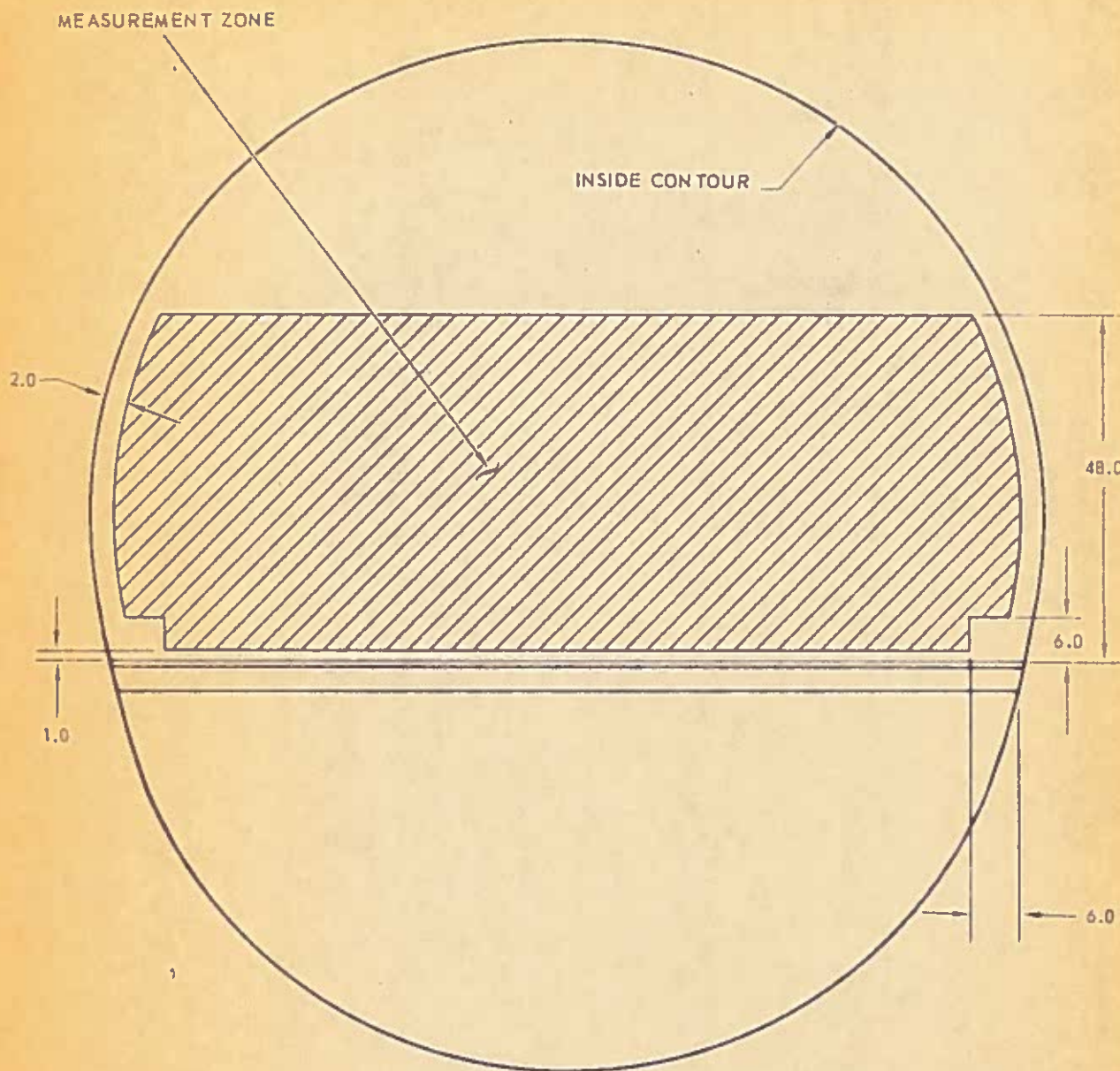


FIGURE 3.16-2



- NOTES: 1. "FREE AIR TEMPERATURE" IS TEMPERATURE MEASURED AWAY FROM THE DIRECT INFLUENCE OF SUPPLY AIR JET TEMPERATURES.
2. THE LIMITING TEMPERATURE VARIATIONS SHALL BE APPLICABLE ONLY TO AN AIRPLANE CARRYING NO PASSENGERS.



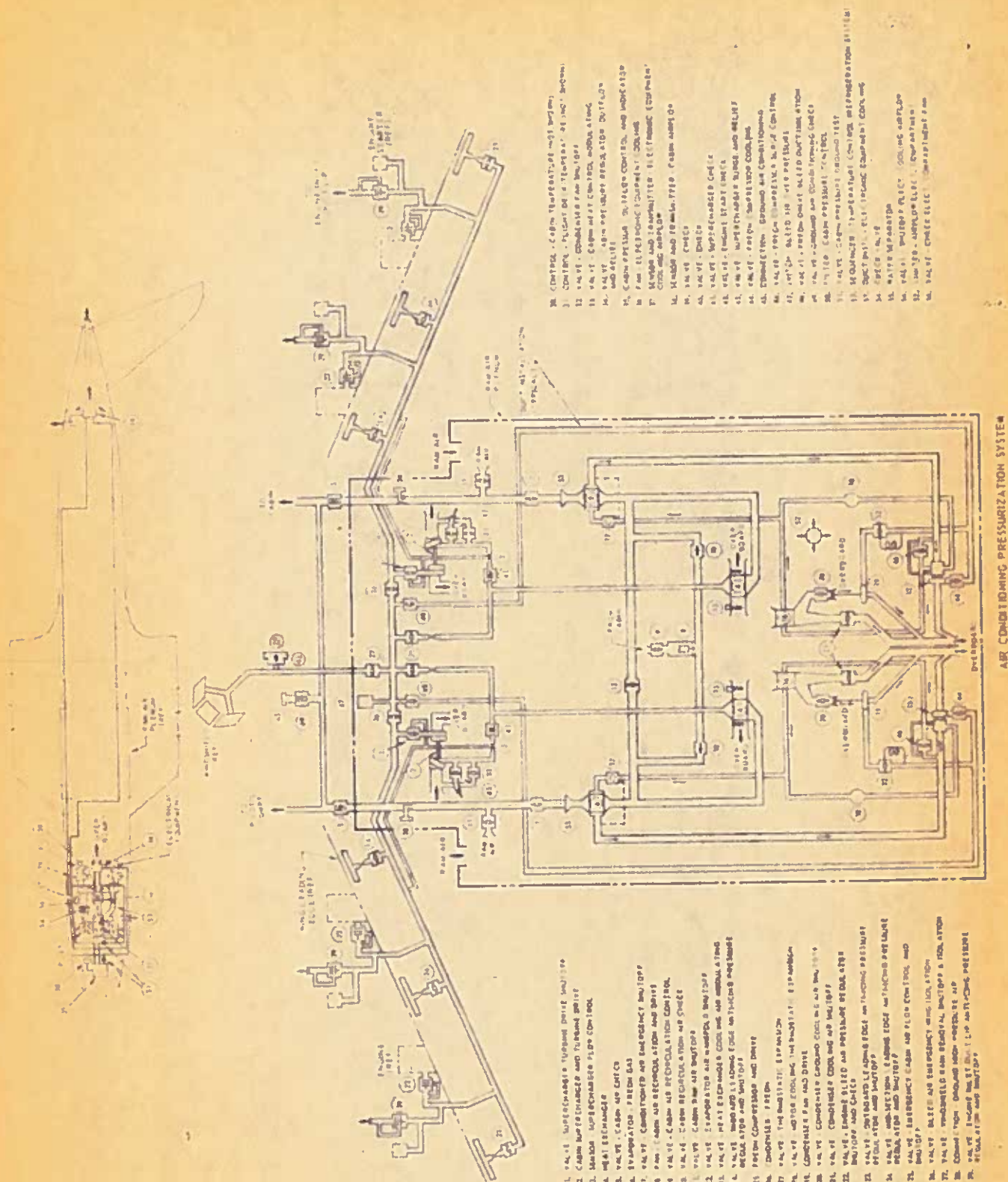
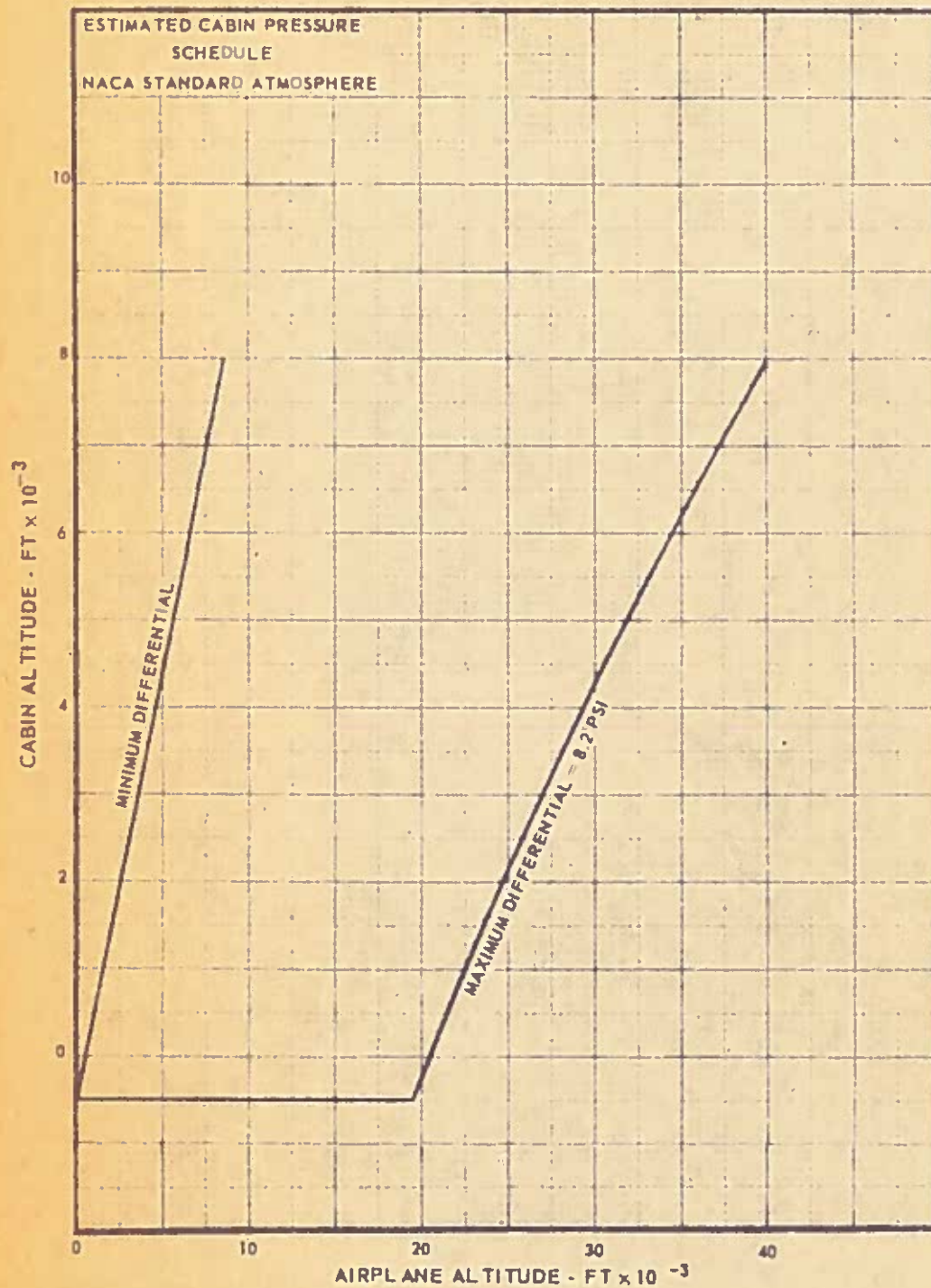


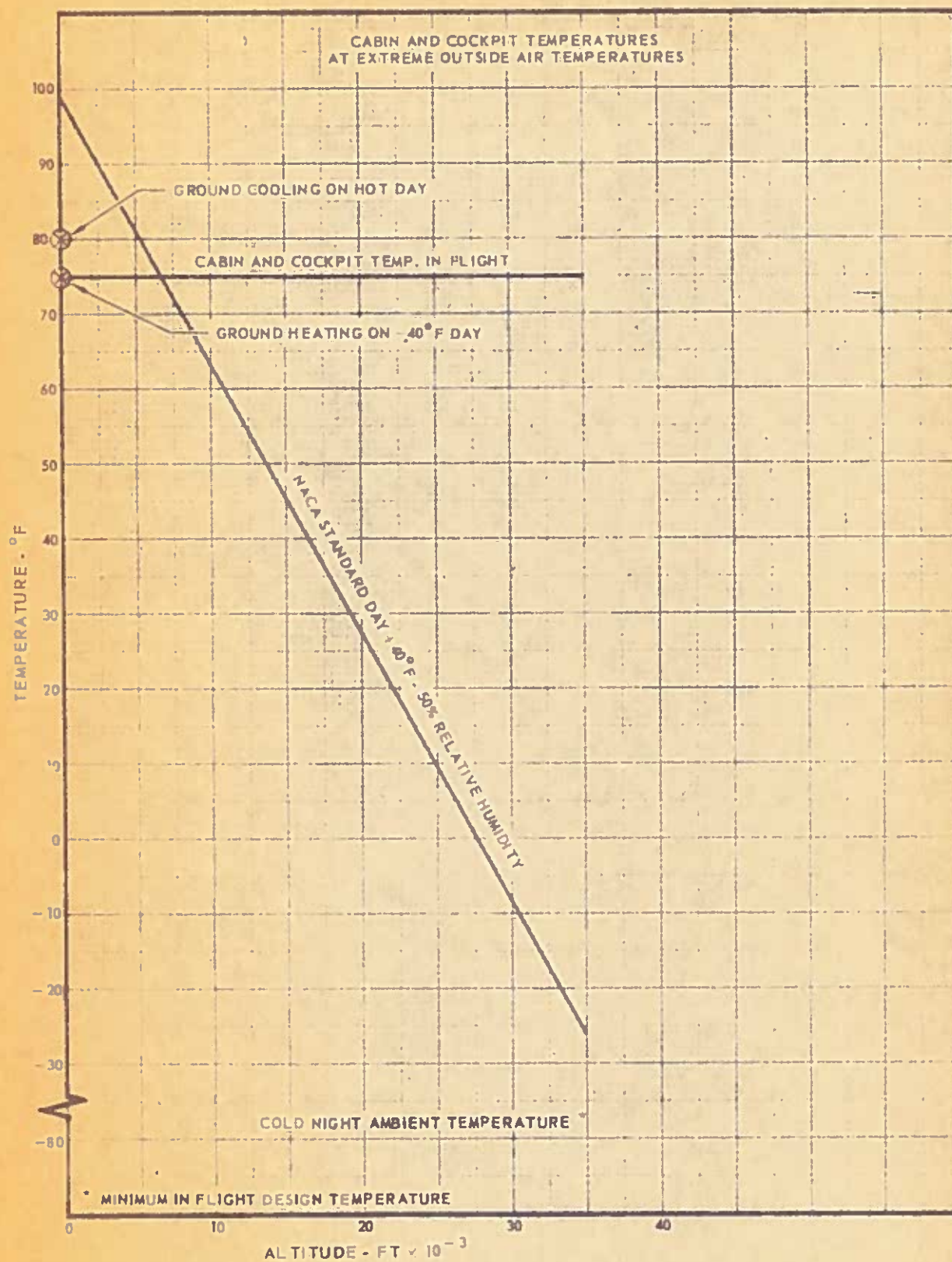
FIGURE 3.20-1



ESTIMATED CABIN PRESSURE SCHEDULE

FIGURE 3.20-2





TEMPERATURE VS ALTITUDE

FIGURE 3.20-3

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,511 DTD 6 April 1960

CHANGE NO.: 300

MODEL: 22-2 (Convair "880")

TITLE: Flap Setting, Takeoff, Change of

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
O	O	

EFFECT ON GUARANTEED PERFORMANCE: \*

As will be noted in Flight Manual

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*Pauline*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 300

Title: Flap Setting, Takeoff, Change of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above

Description of Change:

This proposal has no effect on specification language, and consists of modifying the airplane certification program to include takeoff flap setting at 30 degrees.

The Flight Manual will be revised as required to show the effect of this proposal.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: As will be noted in Flight Manual

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,503 DTD 19 January 1960

CHANGE NO: 299

MODEL: 22-2 (Convair "880")

TITLE: Snubber, Cargo Door, Installation of

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: To provide means of carrying weight of cargo door during closing operation to eliminate a potential personnel hazard.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+22.0 lbs	+22.0 lbs	+17,656 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,483 DTD \_\_\_\_\_

CHANGE NO: 298

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Change to Cabin Floor Covering Interchangeability and Delete Fwd Lounge Removal)

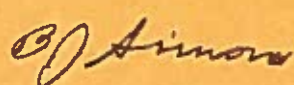
ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 ENGINEERING APPROVAL
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 298

Title: Specification Administrative Change (Change to Cabin Floor  
Covering Interchangeability and Delete Fwd Lounge Removal)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 125, Paragraph 3.23.1 EQUIPMENT INTERCHANGEABILITY:

Add the following item under "1. Interchangeable Parts":

"Cabin Floor Covering"

Delete the below item under "2. Interchangeable Without Alterations":

"Cabin Floor Rugs"

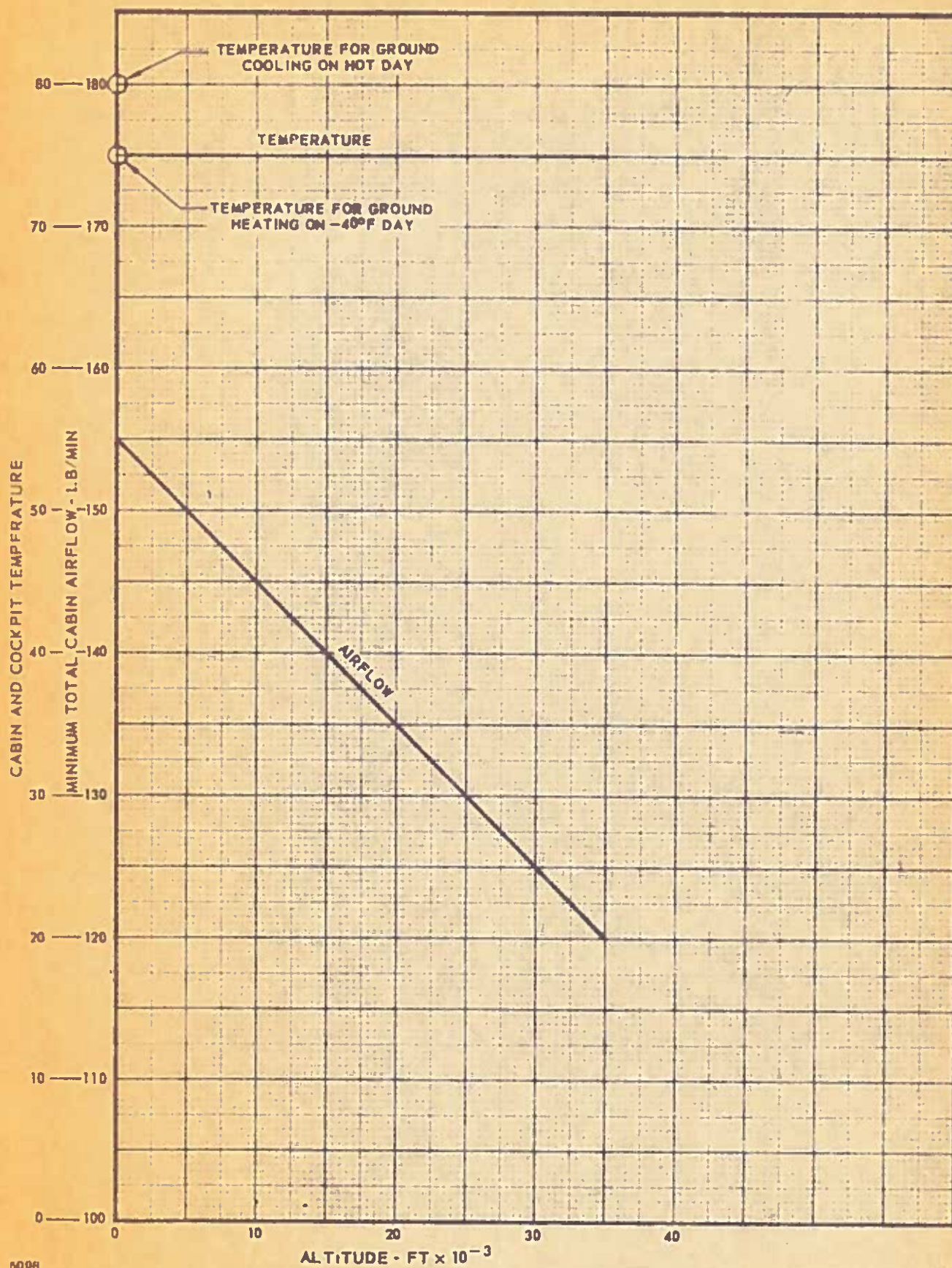
Page B-2, APPENDIX I-D, COMPONENT REMOVAL AND REPLACEMENT TIME:

Delete the below item under "Replacement Item":

"Fwd Lounge Removal	4	4.0	1.0"
---------------------	---	-----	------

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None





CABIN AIR CONDITIONING SYSTEM PERFORMANCE

FIGURE 3.20-4



Title: Specification Administrative Change (Revision to P/N of Fuel Flowmeter Transmitter)

Origin: Convair initiated based on General Electric revision to subject part.

Reason for Change: To incorporate an improved brush rigging in the synchro motor of the transmitter on five airplanes.

Description of Change:

Page A-1, APPENDIX I-C, POWER PLANT EQUIPMENT:

Revise the below item under "Fuel System Equipment" as follows:

<u>From:</u>	"4 Fuel Flow Transmitter	Gen. Electric	8TJ59GAD-1"
<u>To:</u>	"*4 Fuel Flow Transmitter	Gen. Electric	8TJ59GAM-2
	**4 Fuel Flow Transmitter	Gen. Electric	8TJ59GAM-3"

Add the following to the bottom of Page A-1:

"\*Applies to Airplanes 1 through **5**  
\*\*Applies to Airplanes 6 through 10"

Effect on Weight Empty: Negligible  
Effect on Balance: Negligible  
Effect on Performance: None

The following shall not appear in the specification language:

The prior changes to fuel flowmeter transmitter from P/N 8TJ9GAD-1 to P/N 8TJ59GAM-2 consisted of the following:

1. Change from 8TJ59GAD-1 to 8TJ59GAM-1, G. E. request that internal case on transmitter be a soldered joint, in lieu of a welded joint, to provide better access and to reduce scrappage.
2. Change from 8TJ59GAM-1 to 8TJ59GAM-2, Convair request for alteration of mounting bracketry to eliminate flowmeter interference with pod door frame.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,459 DTD \_\_\_\_\_

CHANGE NO: 270

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to MLG emergency extension and stabilizer warning system)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simmons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Revision to MLG emergency extension and stabilizer warning system)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification

Description of Change:

Page 34, Paragraph 3.8.1.5 - EMERGENCY EXTENSION:

Revise the second sentence as follows:

From: "A separate hydraulic pressure source shall be provided for emergency use to open and lock the main landing gear doors".

To: "A pneumatic pressure source shall be provided for emergency use to open and lock the main landing gear doors".

Page 40, Paragraph 3.10.1.5 - STABILIZER SYSTEM:

Revise the last sentence as follows:

From: "A red warning light will indicate an incorrect stabilizer setting for takeoff whenever the airplane is on the ground".

To: A warning horn will indicate an incorrect stabilizer setting for takeoff, as defined in Paragraph 3.16.11.1".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,458 DTD \_\_\_\_\_

CHANGE NO: 269

MODEL: 22-2 (Convair "880")

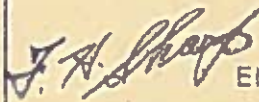
TITLE: Specification Administrative Change (Incorporation of Wheel Brake, NLG System and Hydraulic System Illustrations)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To incorporate subject, up to date, illustrations into the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 269

Title: Specification Administrative Change (Incorporation of Wheel Brake, NLG System and Hydraulic System Illustrations)

Origin: Convair initiated.

Reason for Change: To incorporate subject, up to date, illustrations into the specification.

Description of Change:

Page 38b - WHEEL BRAKE

Page 38c - NOSE LANDING GEAR SYSTEM

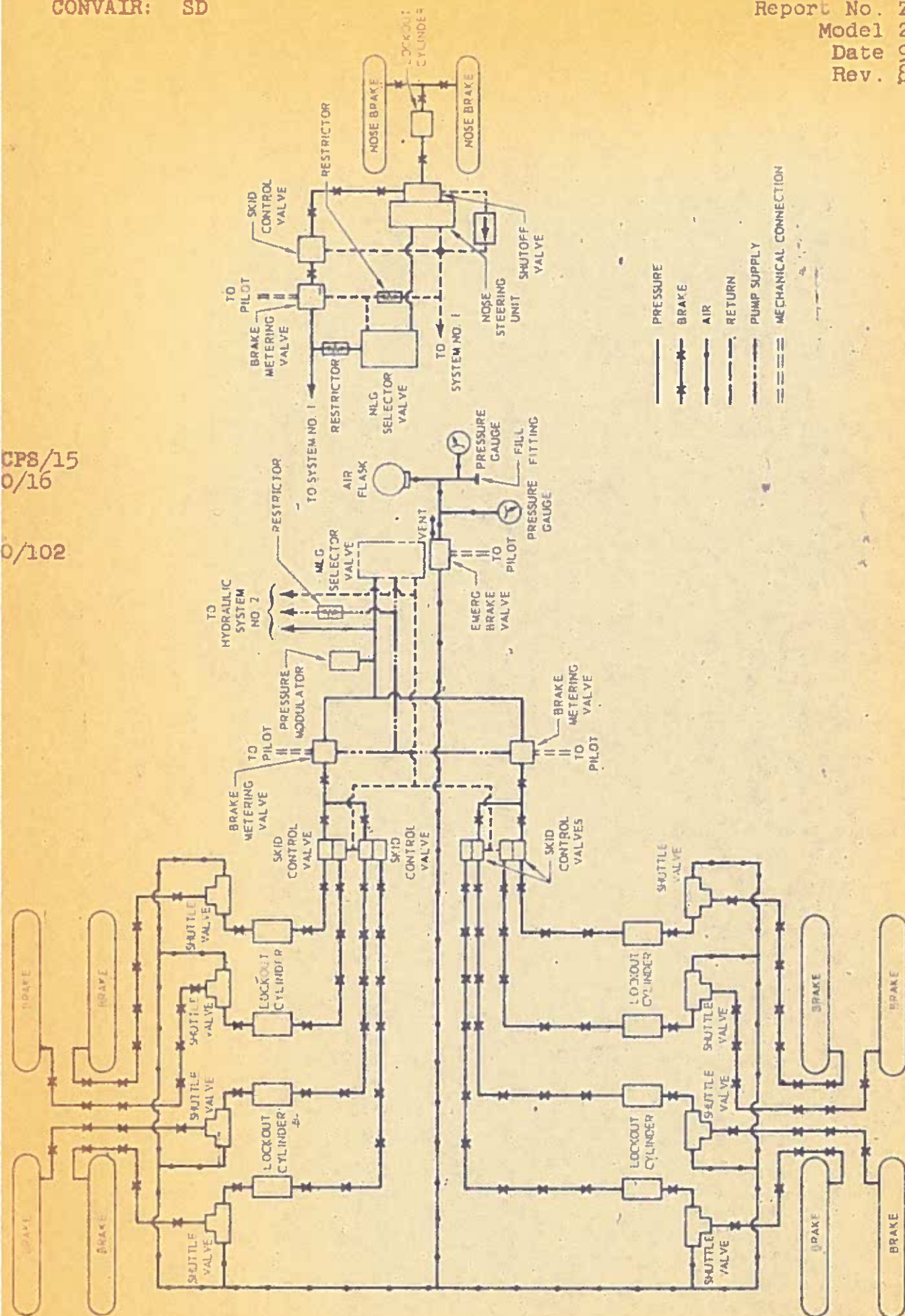
Page 64a - HYDRAULIC SYSTEM

Replace above illustrations in specifications with Enclosures:  
(A), (B) and (C).

Enclosures: (A) One copy revised Page 38b - WHEEL BRAKE  
(B) One copy revised Page 38c - NOSE LANDING GEAR SYSTEM  
(C) One copy revised Page 64a - HYDRAULIC SYSTEM

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None





WHEEL BRAKE  
 DAL

Figure 3.8-2

PS/15  
 CO/16

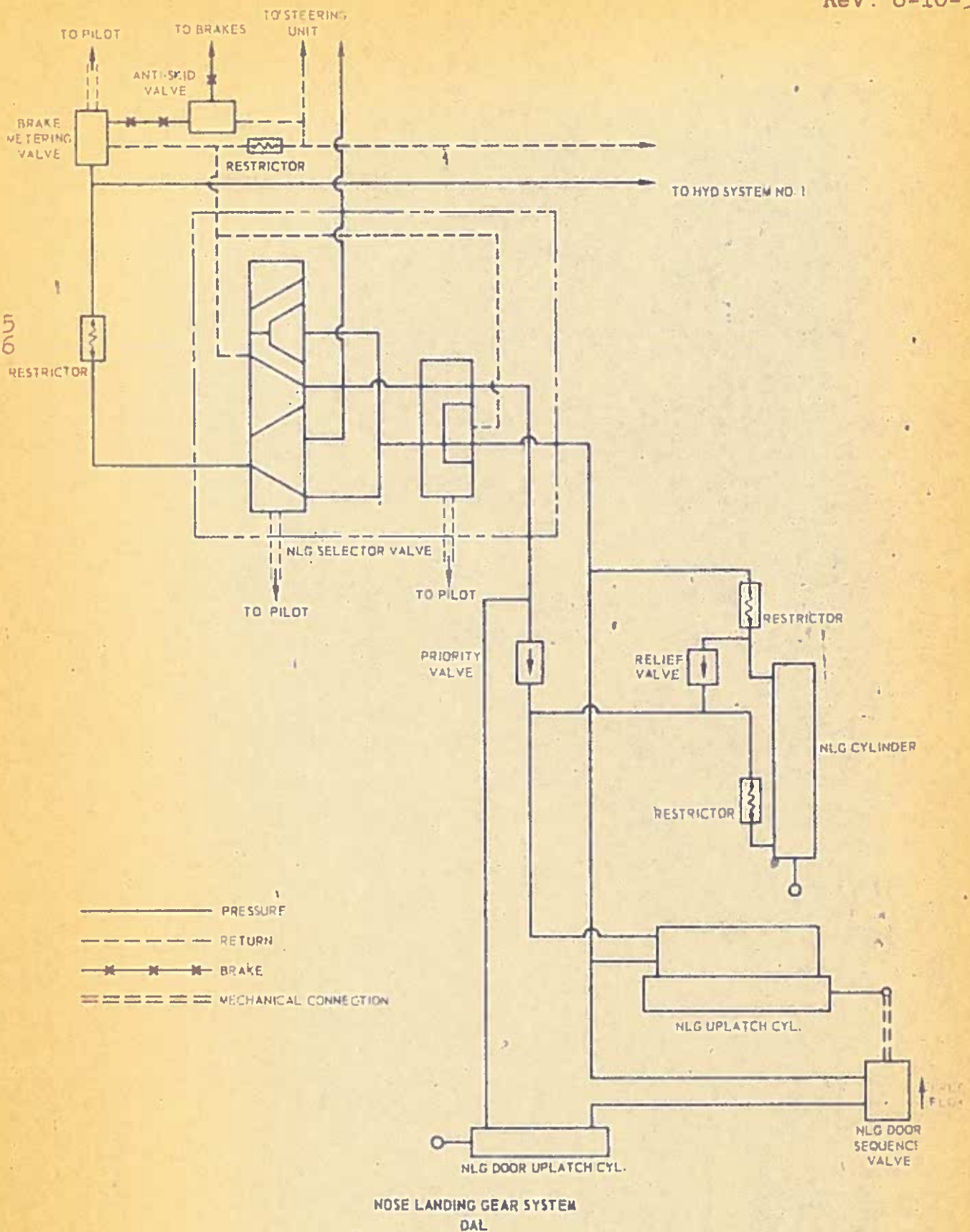


Figure 3.8-2A



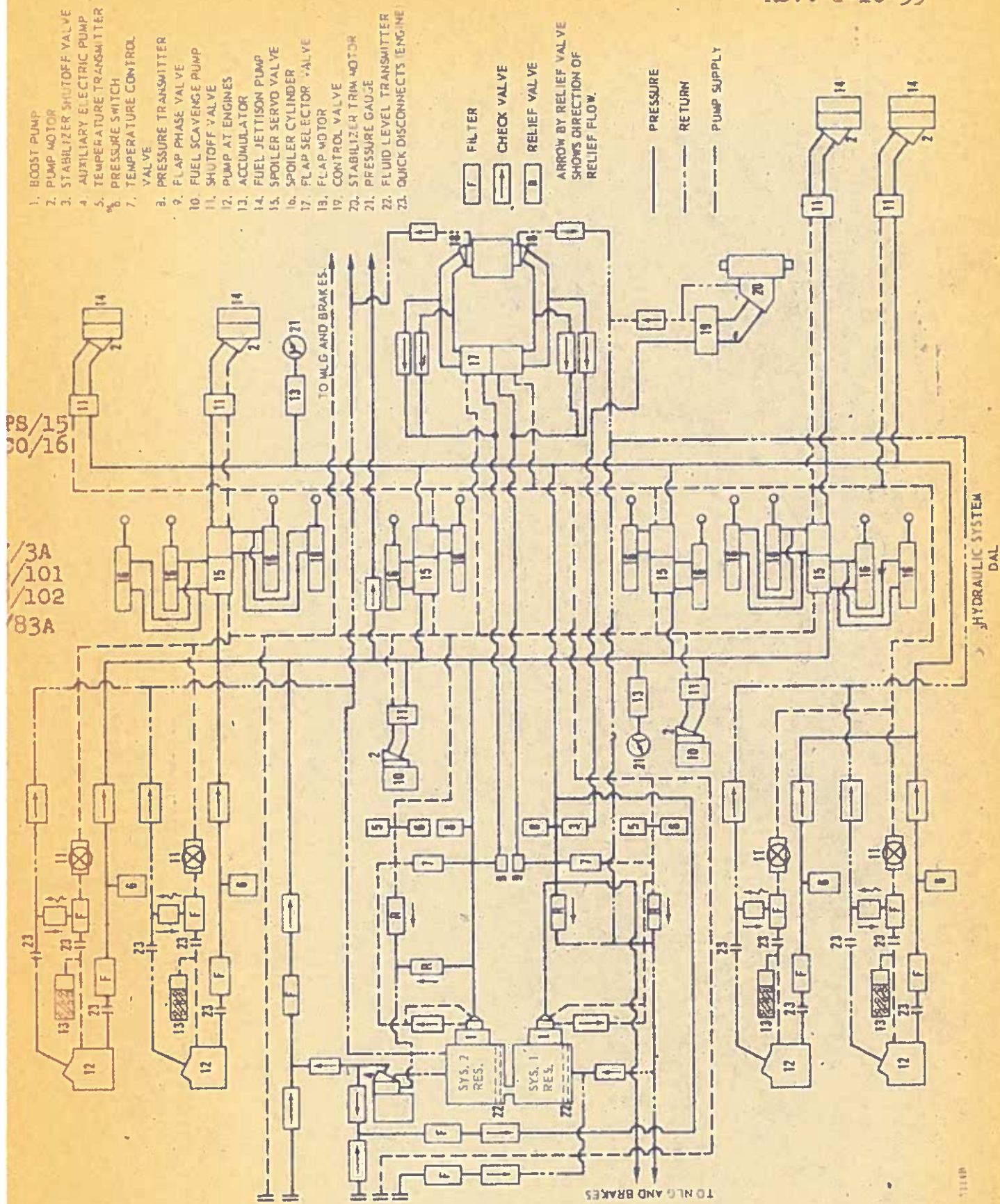


Figure 3.15-1



A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

SPEC NO.: ZD- 22-003 DATE: \_\_\_\_\_  
CUSTOMER: Delta Air Lines Inc. MCL 10,457 DTD \_\_\_\_\_  
CHANGE NO: 268 MODEL: 22-2 (Convair "880")

REASON FOR CHANGE: Placard for reading light switch is not required.

EFFECT ON BALANCE\*

0 INCH LB.

None

ENGINEERING APPROVAL

**AIRPLANES AFFECTED:**

TOTAL:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 268

Title: Specification Administrative Change (Deletion of placards from reading light switches)

Origin: Convair initiated.

Reason for Change: Placard for reading light switch is not required.

Description of Change:

Page 76, Paragraph 3.16.8.3.4 READING LIGHTS:

Revise the fourth sentence as follows:

From: "The "on-off" switch for each light shall be located adjacent to the light and placarded to clearly indicate its function."

To: "The "on-off" switch for each light shall be located adjacent to the light."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003


DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,433 DTD 2 October 1959

CHANGE NO: 267

MODEL: 22-2 (Convair "880")

TITLE: <b>Nose Wheel Brake Deactivation, Installation of Switch for</b>			
ORIGIN: <b>TWA requested and Convair proposed to Delta</b>			
REASON FOR CHANGE: <b>As above</b>			
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY  <b>Negligible</b>	OPER. WT. EMPTY  <b>Negligible</b>	<b>Negligible</b> INCH LB.	
EFFECT ON GUARANTEED PERFORMANCE: *			
<b>None</b>			
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		 ENGINEERING APPROVAL	
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:	
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE:	
		RECURRING: _____	
		NON-RECURRING: _____	
		TOTAL: _____	

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 267

Title: Nose Wheel Brake Deactivation, Installation of  
Switch for

Origin: TWA requested and Convair proposed to Delta

Reason for Change: As above

Description of Change:

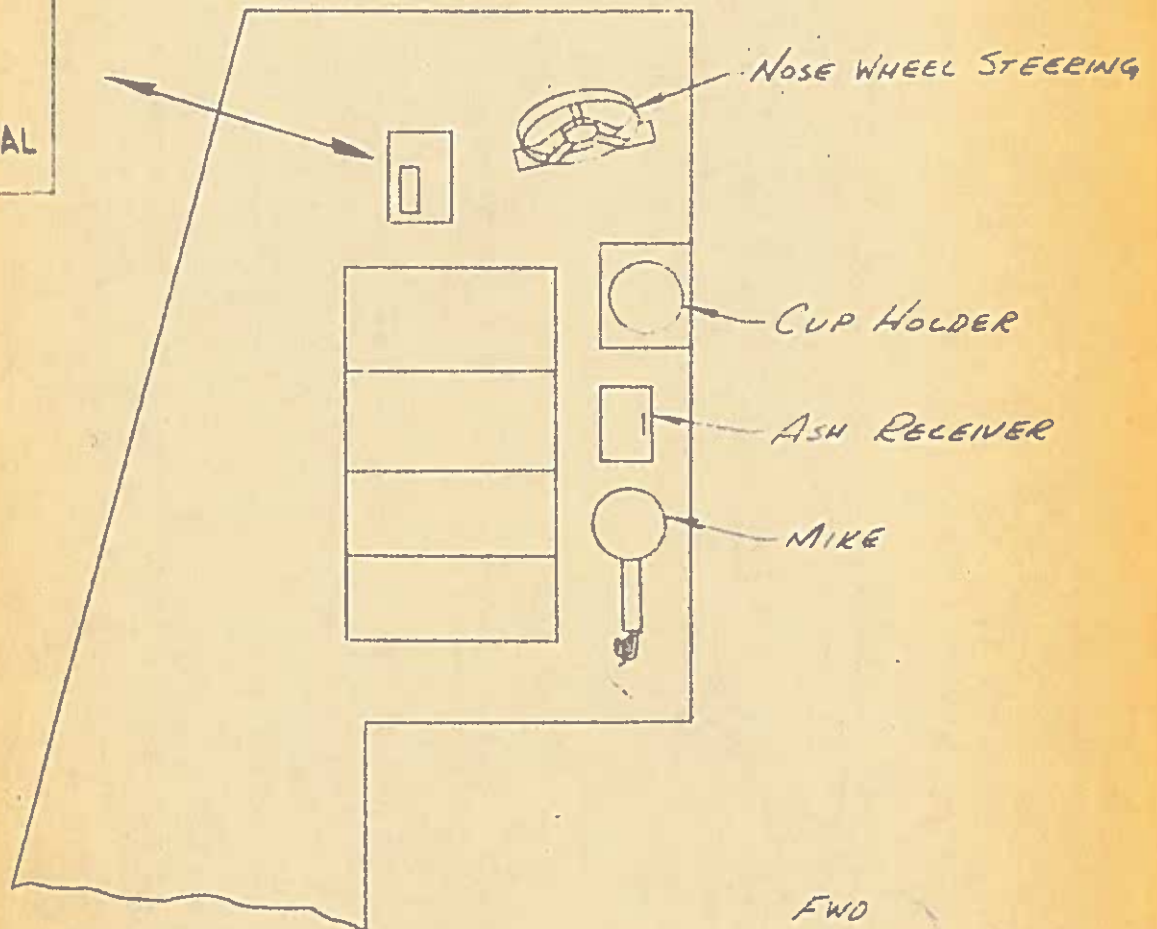
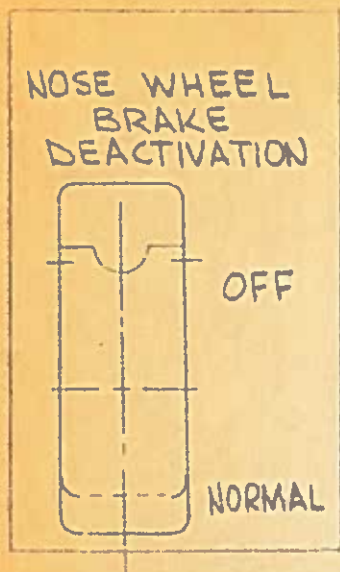
Page 36, Paragraph 3.8.4.2 - WHEELS AND BRAKES:

Add the following sentence, after the third sentence:

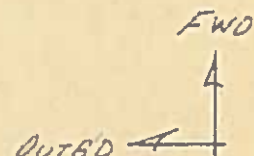
"A switch shall be provided to electrically close the normally open anti-skid valve in the hydraulic supply line to the nose wheel brakes, to block off hydraulic pressure in the event of malfunction.

Enclosure: (A) One copy of Convair Sketch - SK-102659-2, Switch &  
Placard - Nose Wheel Brake Deactivation (For information only)

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None



CONSOLE - PILOTS



SWITCH & PLACARD -  
NOSE WHEEL BRAKE DEACTIVATION  
DELTA

K. J. J.

SK 102659-2



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,431 DTD \_\_\_\_\_

CHANGE NO: 266

MODEL: 22-2 (Convair "880")

TITLE: ATC Transponder Units, Customer Furnished, Installation of

ORIGIN: Delta verbal request (C.J. May to S.J. Harris) on  
1 October 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

+48.0 lbs

+48.0 lbs

+12,960

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: ATC Transponder Units, Customer Furnished, Installation of  
Origin: Delta verbal request (C.J. May to S.J. Harris) on 1 October 1959  
Reason for Change: Customer request

Description of Change:

Page 86, Paragraph 3.16.17 - ESSENTIAL POWER:

Add the following item under "Radio - (All)"

"12. ATC Transponder Beacon (Dual)"

Page 90, Paragraph 3.17.1 - EQUIPMENT:

Revise the first sentence to read as follows:

"The following radio and radar systems shall be furnished, except as noted, and installed by the Contractor".

Add the following item to the "Description List":

"Dual - ATC Transponder Beacon System (Customer Furnished)"

Delete the following item under "Complete provisions for the following systems shall be made":

"Dual - ATC Transponder Beacon System"

Page 102, Paragraph 3.17.4.4 - RADAR SAFETY BEACON:

Delete the paragraph and substitute the following:

"A dual - ATC transponder beacon shall be installed. Both installations shall conform to ARINC Characteristic No. 532A".

Page A-0, APPENDIX I-A, CUSTOMER FURNISHED-CONVAIR INSTALLED EQUIPMENT:

Add the following item to APPENDIX I-A:

"Dual - ATC Transponder Beacon @ 24.0 lbs 48.0 lbs."

Effect on Weight Empty: +48.0 Lbs  
Effect on Balance +12,960 In/Lbs  
Effect on Performance: None



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 266

Page 2

The following shall not appear in the specification language:

Note: APPENDIX I-A, "CUSTOMER FURNISHED - CONVAIR FURNISHED  
EQUIPMENT" was originated in CCP No. 264 (Customer  
Furnished Flight Data Recorders)

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,456 DTD 6 October 1959

CHANGE NO: 265

MODEL: 22-2 (Convair "880")

TITLE: **Corrosion Preventive Coating to Exterior Aluminum Alloy Surfaces, Application of**

ORIGIN: **Convair initiated**

- REASON FOR CHANGE:
- a. To provide an exterior finish that will be more serviceable, repairable and easier to clean than unpainted skins.
  - b. Optimum corrosion protection of the airplane.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

**+100.0 lbs**

**+100.0 lbs**

**+98,800**

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 265

Title: Corrosion Preventive Coating to Exterior Aluminum Alloy  
Surfaces, Application of

Origin: Convair initiated

Reason for Change: See cover sheet.

Description of Change:

This change has no effect on specification language, and consist of painting all bare exterior surfaces, except where peculiar conditions require alternate treatment, and proposes the following points:

- a. One coat "Epoxy" prime, Spec. O-03021- Type I
- b. One coat pigmented "Epoxy" top coat, Spec. O-03021-Type II

(Convair recommends gloss grey to simulate aluminum alloy appearance; however, customer may select desired color without affecting task shown herein)

Effect on Weight Empty: +100.0 lbs  
Effect on Balance: +98,800 Inch-lbs  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,389 DTD Revised 29 October 1959

CHANGE NO: 264

MODEL: 22-2 (Convair "880")

TITLE: Customer Furnished Flight Data Recorder, Installation of

ORIGIN: Delta verbal request 21 September 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+32.0 lb	+32.0 lb	+ 31680 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simon*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: \_\_\_\_\_ AIRPLANES AFFECTED: \_\_\_\_\_

SPECIAL PROVISIONS: \_\_\_\_\_

EFFECT ON PRICE PER AIRPLANE:  
RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 264

Title: Customer Furnished Flight Data Recorder, Installation of

Origin: Delta verbal request 21 September 1959.

Reason for Change: Customer request

Description of Change:

Page 62 (Cont), Paragraph 3.14.3.8 - FLIGHT DATA RECORDING PROVISIONS:

Delete the paragraph and paragraph title and substitute the following:

"FLIGHT DATA RECORDER: A Customer furnished Lockheed Air Service Flight Recorder No. 4001550 Model C, and Customer furnished Amplifier No. 4001551 shall be installed with the necessary wiring, static and pitot lines in the hydraulic compartment.

Page 62E, PITOT STATIC SYSTEM SCHEMATIC:

Above illustration will be revised to show Flight Data Recorder.

Page A-0, APPENDIX I-B, FURNISHINGS:

Add the following to Page A-0, over APPENDIX I-B:

"APPENDIX I-A

CUSTOMER FURNISHED - CONVAIR INSTALLED EQUIPMENT:

<u>Quan</u> <u>Reqd.</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Part or Spec.</u> <u>Number</u>	<u>Weight</u>
1	Flight Data Recorder	Lockheed Air Service	4001550 (Model C)	28.2 lb
1	Amplifier	Lockheed Air Service	4001551	3.8 lb

Effect on Weight Empty: +32.0 lb  
Effect on Balance: +31,680 in/lbs  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,423 DTD 19 August 1959

CHANGE NO: 263A

MODEL: 22-2 (Convair "880")


TITLE: D-C Energized Ignition System, Installation of

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: To provide an alternate ignition power source, and revision to CCP No. 263.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+13.0 lb	+13.0 lb	+4,467 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 <p>ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 263A

Title: D-C Energized Ignition System, Installation of

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: To provide an alternate ignition power source, and revision to CCP No. 263.

Description of Change:

Page 78 (Cont), Add the following new paragraph after Paragraph 3.16.9.1:

"3.16.9.2 IGNITION SYSTEM POWER SOURCE: The ignition system shall normally be energized from an A-C power source; however, a static inverter shall be installed for energizing the ignition system from a D-C power source."

Page 83, Paragraph 3.16.14 BOOSTER COIL:

Delete the paragraph and title and substitute the following:

"3.16.14 IGNITION UNITS: Ignition units (including booster coil) shall be furnished with the engine."

Effect on Weight Empty: +13.0 pounds  
Effect on Balance: +4,467 inch-pounds  
Effect on Performance: None

The following shall not appear in the specification language:

The static inverter also supplies A-C power to the fuel flow and exhaust gas temperature instrumentation during starting with the alternate source.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,420 DTD 13 August 1959

CHANGE NO.: 262

MODEL: 22-2 (Convair "880")

TITLE: Continuous Fire Detector Element Support Clamps, Change of

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: As above.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>75.0 lb</u>	OPER. WT. EMPTY <u>75.0 lb</u>	<u>74,000</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: center;"><i>B. J. Simon</i></p> <p style="text-align: center;">ENGINEERING APPROVAL</p>
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

TE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 262

Title: Continuous Fire Detector Element Support Clamps, Change of

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: As above.

Description of Change:

This proposal has no effect on specification language, and consists of replacing the standard "ADEL" clamps with "FENWAL" quick attach-detach-type clamps.

Effect on Weight Empty:	<del>4</del> 5.0 pounds
Effect on Balance:	<del>4</del> 4,000 inch-pounds
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,404 DTD 27 May 1959

CHANGE NO: 261

MODEL: 22-2 (Convair "880")

TITLE: **Landing Gear Control Revision**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To provide controls to reset hydraulic system, and restore landing gear to normal operation following emergency extension.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 261

Title: Landing Gear Control Revision

Origin: Convair initiated

Reason for Change: See cover sheet.

Description of change:

Page 32, Paragraph 3.8.1.2 - CONTROLS:

Add the following after the fourth sentence:

"An integral pawl device shall be installed to hold the emergency gear handle in the "valve-vented" position until moved by the flight crew. Controls shall be installed to reset the hydraulic system and restore the landing gear to normal operating condition following an emergency extension".

Page A-10, APPENDIX I-C, HYDRAULIC EQUIPMENT:

Revise the below items in the Description List as follows:

<u>From:</u>	"1 MLG Selector Valve	Bertea	39800-5001
	1 MLG Selector Valve	Peacock	51200"
<u>To:</u>	"1 MLG Selector Valve	Bertea	39800-5003
	1 NLG Selector Valve	Peacock	51200-3"

Add the following item to the Description List:

"1 Valve, Door Open, Emergency	Kidde	891507"
--------------------------------	-------	---------

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,456 DTD \_\_\_\_\_

CHANGE NO: 260

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (VG Recorders, deletion of reference to Convair production numbers of airplanes with provisions for)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **Revision to Convair production numbers as affects the airplanes provided with VG recorder provisions.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*R. J. Simon*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS.

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 260

Title: Specification Administrative Change (VG Recorders, deletion of reference to Convair production numbers of airplanes with provisions for)

Origin: Convair initiated

Reason for Change: Revision to Convair production numbers as affects the airplanes provided with VG Recorder provisions.

Description of Change:

Revise the bottom footnote on Page 62 (cont) as follows:

From: "\*\*\*The specific airplanes on which the VG recorder shall be installed will be Convair Production airplanes 36, 37, 38 and 40 (Delta airplanes 7,8,9 and 10)"

To: "\*\*\*The specific airplanes on which the VG recorder shall be installed will be Delta airplanes 7,8,9 and 10".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines, Inc.

MCL 10,454 DTD \_\_\_\_\_

CHANGE NO: 259A

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Miscellaneous Revision to Specification Language)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To clarify the intent of the specification, and revision to CCP No. 259.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Miscellaneous  
Revision to Specification Language)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification, and  
revision to CCP No. 259.

Description of Change:

Page 58, Paragraph 3.14.1.2 - COPILOT'S INSTRUMENT PANEL:

Add the following item to the instrument list:

"\*One indicator, fuel quantity totalizer".

Page 59, Paragraph 3.14.1.3 - ENGINE INSTRUMENT PANEL:

Delete the following item from the instrument list:

"\*One indicator, fuel quantity totalizer".

Page 59, Paragraph 3.14.1.4 - FLIGHT ENGINEER'S INSTRUMENTS:

Revise the below item in the instrument list as follows:

From: "Four dc ammeters"

To: "Five dc ammeters"

Add: the following item to the Instrument List:

"Two hydraulic fluid temperature indicators"

Page 59A, Paragraph 3.14.1.5 - MISCELLANEOUS INSTRUMENTS:

Delete the below items from the instrument list:

"Two oxygen quantity gages  
Three oxygen flow indicators".

Page A-1, APPENDIX I-C, POWER PLANT EQUIPMENT:

Revise the below item under "FUEL SYSTEM EQUIPMENT" as follows:

<u>From:</u>	"4 Drain Valves, consisting of:		
	2 Fuel Tank Low Point Valve	Accessory Prod.	771100
	2 Fuel Line Trap Valve	Accessory Prod.	771000"
<u>To:</u>	"18 Drain Valves, consisting of:		
	6 Fuel Tank Low Point Valve	Accessory Prod.	771100
	12 Fuel Line Trap Valve	Accessory Prod.	771000"

## Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items in the Description List as follows:

<u>From:</u>	"2 Fuel Quantity Probes	Simmonds	
		Aerocess	381056-01277
	30 Fuel Quantity Probes	Simmonds 2 ea.	381056-02278
		Aerocess thru	381056-02292"
<u>To:</u>	"48 Fuel Quantity Probes	Simmonds 2 ea.	381056-02280
		Aerocess.	through
			381056-02284
			381056-02286
			381056-02288
			through
			381056-02293
			381056-02143
			through
			381056-02150
			381056-02152
			381056-02277
			381056-02278
			381056-02279"

Effect on Weight Empty: 0  
 Effect on Balance: 0  
 Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SANTOS, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,453 DTD \_\_\_\_\_

CHANGE NO: 258

MODEL: 22-2 (Convair "880")


TITLE: Specification Administrative Change (Revision to Paragraph 3.16.2.1.2)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \* None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL.  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 ENGINEERING APPROVAL
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 258

Title: Specification Administrative Change (Revision to Paragraph 3.16.2.1.2)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 65, Paragraph 3.16.2.1.2 CONTROL PANEL:

Revise the paragraph to read as follows:

"A generator control panel for each generator shall have a quick disconnect feature to facilitate replacement. Protection and cooling shall be provided to insure proper generator system operation."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,419 DTD Revised 27 July 1959

CHANGE NO: 256

MODEL: 22-2 (Convair "880")

TITLE: Passenger Cabin and Club Area Interior, Changes to

ORIGIN: Delta verbal request of 7 July 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Proposal "A" +17.0 lb	Proposal "A" +17.0 lb	Proposal "A" 14,161 Inch-Lb.
Proposal "B" Negl.	Proposal "B" Negl.	Proposal "B" Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE. \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. A. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Passenger Cabin and Club Area Interior, Changes to

Origin: Delta verbal request of 7 July 1959

Reason for Change: Customer request

Description of Change:

PROPOSAL "A"

This proposal has no effect on specification language, and consists of removing gold mylar under valance lights in passenger cabin and club-area, and replacing with a valance trim panel covered with ten-ounce vinyl coated fibreglas, or aluminum valance trim. Customer finish specification will be revised to show this change on approval of this proposal. CC 1374 Tile Orange is proposed for club area window valance trim color; and CC 1327 Sungold (257403) is proposed for cabin window valance trim color. Samples of these trim materials will be provided for customer inspection.

Effect on Weight Empty: +17.0 Lbs  
Effect on Balance: +14,161 Inch-Lbs  
Effect on Performance: None

PROPOSAL "B"

This proposal has no effect on specification language, and consists of deleting pip pin retention strap from club area seat legs.

Effect on Weight Empty: Negligible  
Effect on Balance: Negligible  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,417 DTD 2 July 1959

CHANGE NO: 255

MODEL: 22-2 (Convair "880")

TITLE: Fuel Gaging System, Revision to

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	Proposal "A" Negligible Inch-Lb
Proposal "A" Negl.	Proposal "A" Negl.	Proposal "B" +300 Inch-Lb
Proposal "B"+1.0 lb	Proposal "B"+1.0 lb	Proposal "C" +300 INCH LB.
Proposal "C"+1.0 lb	Proposal "C"+1.0 lb	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Fuel Gaging System, Revision to

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above

Description of Change:

PROPOSAL "A"

## Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items in the Description List as follows:

<u>From:</u>	"2 Fuel Quantity Indicator Repeater	Simmonds 383093-01581	
	2 Fuel Quantity Indicator Repeater	Aerocess.	
	2 Fuel Quantity Indicator Repeater	Simmonds 383093-01582	
	2 Fuel Quantity Ind. (Counter-Pointer-Type)	Aerocess.	
	2 Fuel Quantity Ind. (Counter-Pointer-Type)	Simmonds 393022-01581	
		Aerocess.	
	2 Fuel Quantity Ind. (Counter-Pointer-Type)	Simmonds 393022-01582"	
		Aerocess.	
<u>To:</u>	"2 Fuel Quantity Indicator Repeater	Simmonds (P/N to be supplied)	
	2 Fuel Quantity Indicator Repeater	Aerocess.	
	2 Fuel Quantity Indicator Repeater	Simmonds (P/N to be supplied)	
	2 Fuel Quantity Indicator Tank No. 1 & No. 4	Aerocess	
	2 Fuel Quantity Indicator, Tank No. 2 & No. 3	Simmonds (P/N to be supplied)	
		Aerocess	

Effect on Weight Empty: Negligible

Effect on Balance: 0

Effect on Performance: None

The following shall not appear in the specification language:

The proposed fuel indicators will be designed to accept the Series 67 amphenol connectors in lieu of the Series 165 connectors.



PROPOSAL "B"

Same as Proposal "A" except, includes the installation of four in-line maintenance disconnects in the co-axial wiring which does not effect the specification language.

Effect on Weight Empty: +1.0 Lb  
Effect on Balance: +300 Inch-Lbs.  
Effect on Performance: None

PROPOSAL "C"

This proposal has no effect on the specification language and consists only of the installation of four in-line maintenance disconnects in the co-axial wiring, retaining the existing Series 165 connectors.

Effect on Weight Empty: +1.0 Lb.  
Effect on Balance: +300 Inch-Lbs  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,451 DTD \_\_\_\_\_

CHANGE NO: 254

MODEL: 22-2 (Convair "880")

TITLE **Specification Administrative Change (Revision to Paragraphs 3.12.9.12 and 3.14.3.6)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of the specification**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: **None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Revision to Paragraph 3.12.9.12 and 3.14.3.6)

Origin: Convair initiated.

Reason for Change: To clarify the intent of the specification

Description of Change:

Page 53, Paragraph 3.12.9.12 - FUEL TEMPERATURE INDICATION:

Revise the paragraph to read as follows:

"Five sensing elements shall be installed to transmit fuel temperatures. One shall be so located in the fuel tank that the temperature indicated shall be the most critical from a freezing standpoint. One indicator shall be used in connection with a selector switch to indicate fuel inlet temperature to each engine fuel filter and the fuel tank."

Page 62, Paragraph 3.14.3.6 - INSTRUMENT LINES AND CONNECTIONS:

Revise the first sentence as follows:

From: "Instrument lines shall be color coded in accordance with Design Drawing No. AND10375."

To: "Instrument lines shall be color coded in accordance with Standard AND10375."

Revise the ninth sentence as follows:

From: "Flexible connections shall incorporate 1/4 inch hoses on the static side and 3/16 inch hose on the pitot side."

To: "Flexible connections shall incorporate 1/4-inch hoses, with different size fittings to prevent cross connection."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,350 DTD \_\_\_\_\_

CHANGE NO: 253

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Electronic and Electrical Component Cooling)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **Product improvement.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



Title: Specification Administrative Change (Revision to Electronic and Electrical Component Cooling)

Origin: Convair initiated.

Reason for Change: Product improvement.

Description of Change:

Page 122A, FIGURE 3.20-1 AIR CONDITIONING PRESSURIZATION SYSTEM: /

Above illustration to be revised to show the effects of this proposal.

Enclosure: (A) One copy of Convair Sketch - AIRFLOW PATTERN SHOWN FOR NORMAL INFLIGHT MODE (For information only)

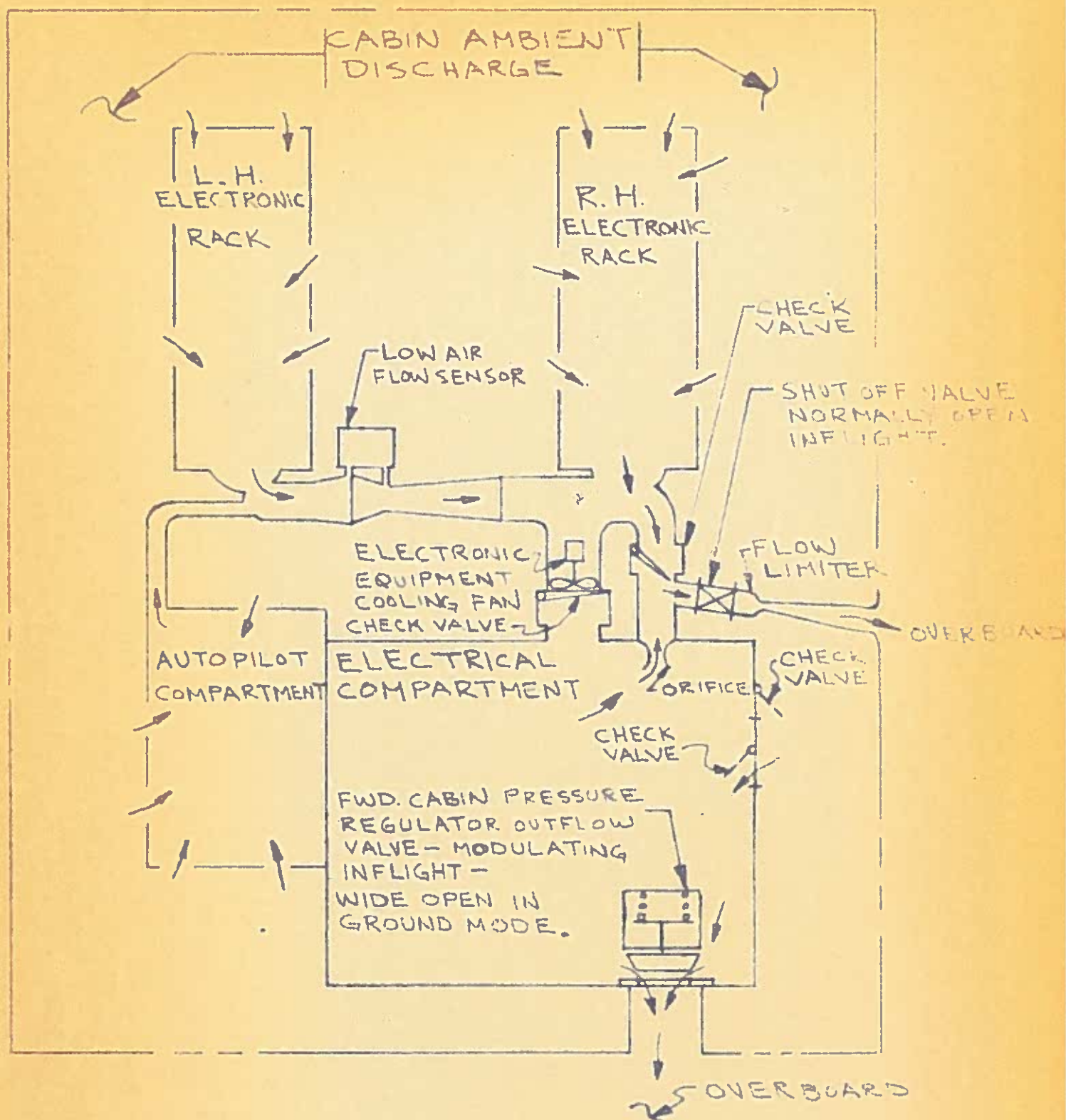
Enclosure: (B) One copy of Convair Sketch - ELECTRICAL EQUIPT COOLING VALVE LOCATION (For information only)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the Specification language:

The system is being redesigned to provide an overboard discharge duct, shut-off valve and Venturi from the electrical and electronic compartments. The overboard discharge duct will provide cooling during flight except at low altitudes when the cabin pressure differential is low. On the ground and during the low altitude conditions the present electronic cooling blower will be used. A shut-off valve will be provided in the discharge line which will be open at all times. This valve can be closed by a switch on the flight engineer's panel at the option of the crew when and if required in the event of loss of normal air flow to the cabin. The cabin pressure system will be revised to eliminate the differential bias. Its operation will be completely independent of the electronic cooling system. Enclosure (A) defines the proposed arrangement.

# MODEL 22 ELECTRONIC COOLING SCHEMATIC



AIRFLOW PATTERN SHOWN FOR NORMAL INFLIGHT MODE.



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,349 DTD \_\_\_\_\_

CHANGE NO: 252

MODEL: 22-2 (Convair "880")

TITLE **Specification Administrative Change (Delete "WIRELON" designation from Par. 3.16.6)**

ORIGIN: **Convair initiated.**


REASON FOR CHANGE: **Product improvement.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
**ENGINEERING APPROVAL**

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Specification Administrative Change (Delete "WIRELON"  
designation from Par. 3.16.6)

Origin: Convair initiated.

Reason for Change: Product improvement.

Description of Change:

Page 70, Paragraph 3.16.6 BONDING AND SHIELDING:

Revise the second sentence as follows:

From: "Bonding exposed to the windstream shall be "Wirelon" or  
equivalent.

To: "Bonding exposed to the windstream shall be in accordance  
with MS-25083."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,414 DTD 2 July 1959

CHANGE NO: 251A

MODEL: 22-2 (Convair "880")

TITLE: Engine Ignition Switch, Revision to

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: Customer request for revision to CCP No. 251.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simon*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 251A

Title: Engine Ignition Switch, Revision to

Origin: TWA requested and Convair proposed for Delta

Reason for Change: Customer request for revision to CCP No. 251.

Description of Change:

Page 56A, FIGURE 3.12-1 - ENGINE STARTING SYSTEM:

Revise above illustration to show fixed position switch in lieu  
of a momentary switch.

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,348 DTD \_\_\_\_\_

CHANGE NO: 250A

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Engine Installation Interchangeability)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To clarify the intent of Paragraphs 3.11.7 and 3.23.1, and revision to CCP No. 250**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*John Samuel Appligath 10/7*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Revision to Engine Installation Interchangeability)

Origin: Convair initiated.

Reason for Change: To clarify the intent of Paragraphs 3.11.7 and 3.23.1, and revision to CCP No. 250.

Description of Change:

Page v, INTRODUCTION:

Revise the first sentence in the second paragraph to read as follows:

"The four General Electric CJ-805 turbojet engines are completely interchangeable and replaceable as complete engine assemblies except as noted in Paragraph 3.11.7".

Page 44, Paragraph 3.11.7 INSPECTION AND MAINTENANCE:

Revise the last sentence as follows:

From: "Each engine installation shall be completely interchangeable and replaceable as a complete engine assembly, except that certain engine accessories may not be required on each engine installation".

To: "Each engine installation shall be interchangeable and replaceable as a complete engine assembly, except that certain engine accessories, such as provisions for ground in-line combustor, may not be required on each engine installation, and the thrust reverser cascade configuration must be selected for each pod to minimize ingestion".

Page 125, Paragraph 3.23.1 EQUIPMENT INTERCHANGEABILITY:

Revise the below item under "2. Interchangeable Without Alterations" as follows:

From: "Engine (Quick Change)"

To: "Engine (Quick Change, except as noted in Paragraph 3.11.7)"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,347 DTD \_\_\_\_\_

CHANGE NO: 249

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to Interchangeability of Crew and Passenger Seat Items)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the interchangeability status of crew and passenger seat items

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*F. H. Sharp*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 249

Title: Specification Administrative Change (Revision to  
Interchangeability of Crew and Passenger Seat Items)

Origin: Convair initiated

Reason for Change: To clarify the interchangeability status  
of crew and passenger seat items.

Description of Change:

Page 126, Paragraph 3.23.1 - EQUIPMENT INTERCHANGEABILITY:

Revise the below item under "2 Interchangeable Without  
Alterations" as follows:

From: "Crew and Passenger Seat and Back Cushions and Arm  
Rest Covers".

To: "Passenger Seat Covers, Cushions and Arm Rests".

Add the following under "2 Interchangeable Without Alterations".  
"Crew Seat Covers (upholstery) and Arm Rests

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,346 DTD \_\_\_\_\_

CHANGE NO.: 248

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Change 0-09100 to 0-09001)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To correct typographical error.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Change 0-09100 to 0-09001)

Origin: Convair initiated.

Reason for Change: To correct typographical error.

Description of Change:

Delete "0-09100" where appearing in the following paragraphs, and  
substitute "0-09001":

Page 66, Paragraph 3.16.3, in third line.

Page 67, Paragraph 3.16.5.1, in fourth line.

Page 68, Paragraph 3.16.5.6, in third line.

Page 70, Paragraph 3.16.6, in fourth line.

Page 92, Paragraph 3.17.1.3, in second line.

Paragraph 3.17.1.3.2, in third line.

Page 94, Paragraph 3.17.1.3.8, in second line.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: 7D- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,345 DTD \_\_\_\_\_

CHANGE NO: 247

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Essential Power of HF Transmitter)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To delete HF transmitter from Essential D-C Power radio bus, as Delta HF Communication system does not require D-C power for operation.**


EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

  
 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 247

Title: Specification Administrative Change (Revision to Essential Power of HF Transmitter)

Origin: Convair initiated.

Reason for Change: To delete HF transmitter from Essential D-C Power radio bus, as Delta HF communication system does not require D-C power for operation.

Description of Change:

Page 86, Paragraph 3.16.17 ESSENTIAL POWER:

Delete the following item under "Radio (ALL)", and renumber the remaining items 1 through 11:

"3. HF Transmitter"

Page 96, Paragraph 3.17.1.7.1 D-C POWER CONTROL:

Revise the fourth sentence as follows:

From: "The dc power controlled by the "Essential" switch shall supply the No. 2 VHF communication equipment, the No. 1 VHF navigation equipment and the HF equipment."

To: "The d-c power controlled by the "Essential" switch shall supply the No. 2 VHF communication equipment and the No. 1 VHF navigation equipment."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,344 DTD \_\_\_\_\_

CHANGE NO: 246

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to landing gear part numbers)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To clarify part numbers of certain items of landing gear equipment.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 246

Title: Specification Administrative Change (Revision to landing gear part-numbers)

Origin: Convair initiated.

Reason for Change: To clarify part numbers of certain items of landing gear equipment.

Description of Change:

Page A-11, APPENDIX I-C, LANDING GEAR EQUIPMENT:

Revise the below items as follows:

<u>From:</u>	"2	Main Oleo Shock Strut	Cleveland Pneum.	SK 9729	
	8	Main Wheels	Goodyear	9541333	PD860
	8	Main Wheel Brakes	Goodyear	9560393	PD860
	1	Nose Wheel Shock Strut	Cleveland Pneum.	SK 9772	
	2	Nose Wheels	Goodyear	9541334	PD875
	1	Nose Wheel Brake	Goodyear	9560394	PD875"
<u>To:</u>	"2	Main Oleo Shock Strut	Cleveland Pneum.	9729A	
	8	Main Wheels	Goodyear	9541333	
	8	Main Wheel Brakes	Goodyear	9560393	
	1	Nose Wheel Shock Strut	Cleveland Pneum.	9772A	
	2	Nose Wheels	Goodyear	9541334	
	2	Nose Wheel Brakes	Goodyear	9560394"	

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,343 DTD \_\_\_\_\_

CHANGE NO: 245A

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to bleed air pressure regulator P/N)**

ORIGIN: **Convair initiated.**

REASON FOR CHANGE: **To furnish revised part number for bleed air pressure regulator, in lieu of part number submitted by CCP No. 178; and revision to CCP No. 245**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J.A. Sharp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 245A

Title: Specification Administrative Change (Revision to bleed air pressure regulator P/N)

Origin: Convair initiated.

Reason for Change: To furnish revised part number for bleed air pressure regulator, in lieu of part number submitted by CCP No. 178; and revision to CCP No. 245.

Description of Change:

This change has no effect on Specification language.

Effect on Weight Balance: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the Specification language:

The below is the change to the part number of subject regulator. All other items submitted by CCP No. 178 remain unchanged.

From: "Press. Reg. 108590-400  
(Convair P/N 22-02462  
Bleed Air Pressure  
Regulator and Shut-Off  
Valve)"

To: "Press. Reg. 108972-400-2  
(Convair P/N 22-02462-7  
Bleed Air Pressure  
Regulator and Shut-Off  
Valve)"



# CONVAIR

DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,342 DTD \_\_\_\_\_

CHANGE NO: 244

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Revision to main landing gear schematic)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To incorporate an up to date Main Landing Gear System schematic.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*F. A. Sharp*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 244

Title: Specification Administrative Change (Revision to main landing gear schematic)

Origin: Convair initiated.

Reason for Change: To incorporate an up to date Main Landing Gear System schematic.

Description of Change:

Page 38a, FIGURE 3.8-1 MAIN LANDING GEAR SYSTEM:

Replace above illustration in specification with Enclosure (A).

ENCLOSURE: (A) One copy FIGURE 3.8-1 MAIN LANDING GEAR SYSTEM  
(Revised)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None





# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,406 DTD \_\_\_\_\_

CHANGE NO: 243

MODEL: 22-2 (Convair "880")

TITLE: Ice-Detector Units, Deletion of From No. 2 and No. 4 Pods

ORIGIN: Convair initiated.

REASON FOR CHANGE: Product improvement.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
-7.0 lb	-7.0 lb	-5,690 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simon*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: \_\_\_\_\_

AIRPLANES AFFECTED: \_\_\_\_\_

SPECIAL PROVISIONS: \_\_\_\_\_

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 243

Title: Ice-Detector Units, Deletion of From No. 2 and No. 4 Pods

Origin: Convair initiated.

Reason for Change: Product improvement.

Description of Change:

Page 122, Paragraph 3.20.2.5 ICE DETECTOR SYSTEM:

Revise the paragraph to read as follows:

"An ice-detector system shall be installed with warning lights in the pilot compartment. Two detector units shall be installed; one in the No. 1 pod and one in the No. 3 pod. Automatic control of the airplane anti-icing system shall be provided; operated by either of the ice detector units. Provisions shall be made for the installation of one ice detector unit in No. 2 pod and one in No. 4 pod."

Page A-1, APPENDIX I-C, POWER PLANT EQUIPMENT:

Revise the below item as follows:

<u>From:</u>	"4 Ice Warning Detector	Goodyear (CARL)	3065-1802 Type T260-MK12A"
<u>To:</u>	"2 Ice Warning Detector	Goodyear (C.A.R.L.)	3065-1802 Type T260-MK12A"

Effect on Weight Empty: -7.0 pounds  
Effect on Balance: -5,690 inch-pounds  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,405 DTD 3 June 1959

CHANGE NO: 242B

MODEL: 22-2 (Convair "880")

TITLE: Air Conditioning System, Revision to

ORIGIN: Convair initiated

REASON FOR CHANGE: See second sheet

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

-10.0 lb

-10.0 lb

-6,213 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*Bf Simons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Air Conditioning System, Revision to

Origin: Convair initiated

- Reason for Change:
1. To prevent possible ingestion of exhaust gasses into system from other airplanes while on the ground
  2. To prevent objectionable cycling between the turbo-compressors and the recirculating blower during ground operation.
  3. Revision to CCP No. 242A.

Description of Change:

Page 122A, FIGURE 3.20-1 - AIR CONDITIONING PRESSURIZATION SYSTEM:

Above illustration will be revised to delete the fresh air check and control valves, items 10 and 35, in the ground air conditioning system.

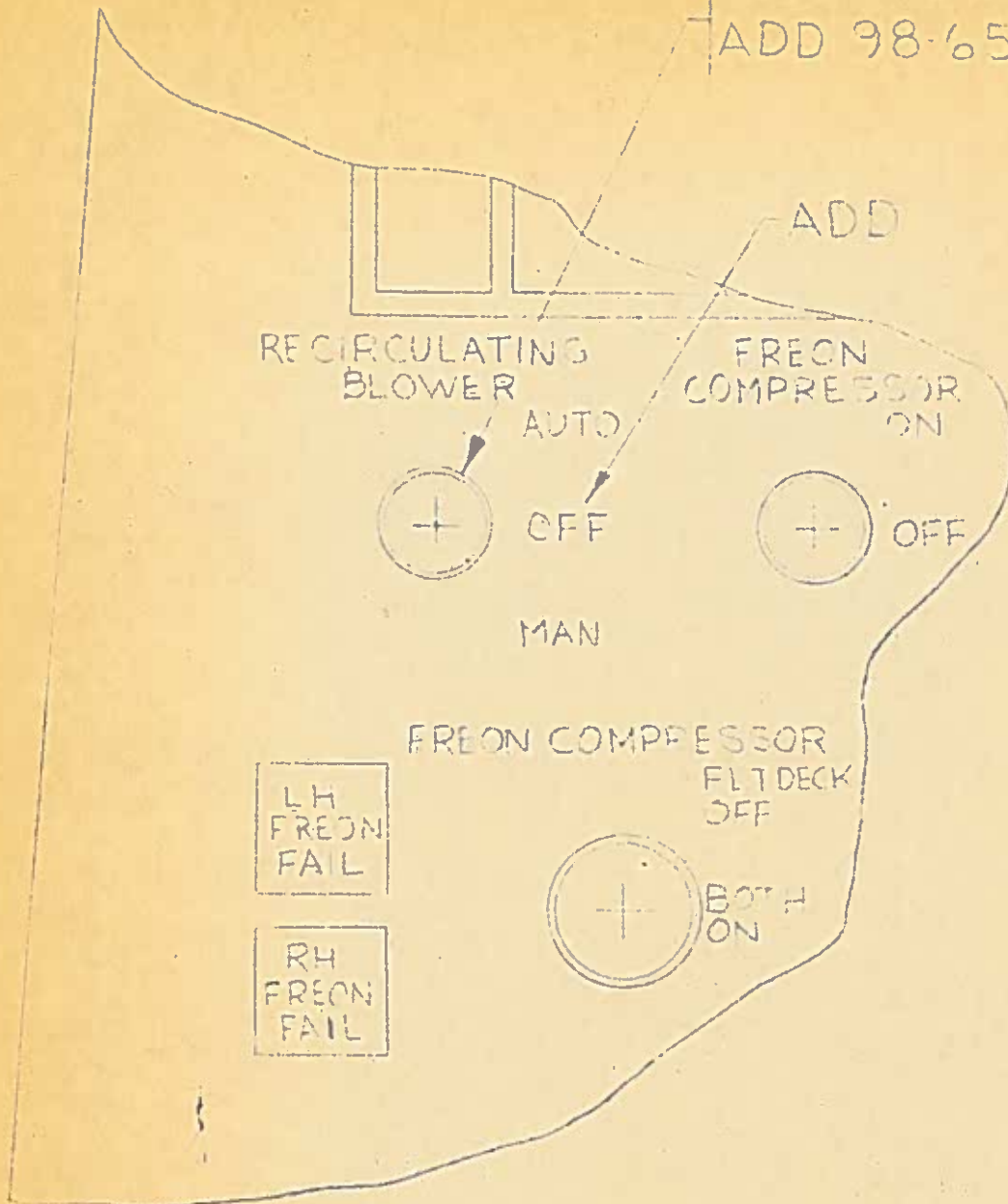
Enclosure: (A) One copy Convair Sketch - AIR COND - TURBO COMPR. & RECIRC. FAN - MANUAL CONTROLS (For information only).

Effect on Weight Empty: -10.0 Pounds  
Effect on Balance: -6,213 Inch-Pounds  
Effect on Performance: None

The following shall not appear in the specification language:

1. The recirculation valve item 9 will be modified to suit the subject revision; with part number change from 22-02451-1 to 22-02451-3.
2. The switches which control the turbo compressors and the recirculating blower are modified to permit manual control of these systems on the ground to prevent objectional cycling under certain ambient temperature conditions. Enclosure (A) shown the modified three-position switches and the revised labeling thereof.

REM MS 250683  
ADD 98-65030 006



LESS OTHERWISE SPECIFIED  
DIMENSIONS IN INCHES  
TOLERANCES ON  
X .XXX ANGLES  
±.010 ±0° 30'

STRU		
STD		
GRP		
DRFT	PARK P H	2/22

**CONVAIR PART**

AIR COND-TURBO  
COMPR.& RECIRC  
FAN-MANUAL CONT.  
PROVISIONS

SCALE = 1/1

SHEET OF

DWG  
**A**  
SIZE

**CONVAIR**

A DIVISION OF  
GENERAL DYNAMICS  
CORPORATION  
SAN DIEGO, CALIFORNIA



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,405 DTD 3 June 1959

CHANGE NO. 242C

MODEL: 22-3 (Convair "880")

TITLE: Air Conditioning System, Revision to

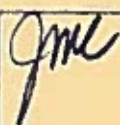

ORIGIN: Convair initiated

REASON FOR CHANGE: See second sheet

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<div style="text-align: center;">     ENGINEERING APPROVAL </div>
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 242C

Title: Air Conditioning System, Revision to

Origin: Convair initiated

Reason for Change: 1. To prevent objectionable cycling between the turbo-compressors and the recirculating blower during ground operation.

2. Revision to CCP No. 242B.

Description of Change:

Enclosure: (A) One copy Convair Sketch - AIR COND - TURBO COMPR. & RECIRC. FAN - MANUAL CONTROLS (For information only)

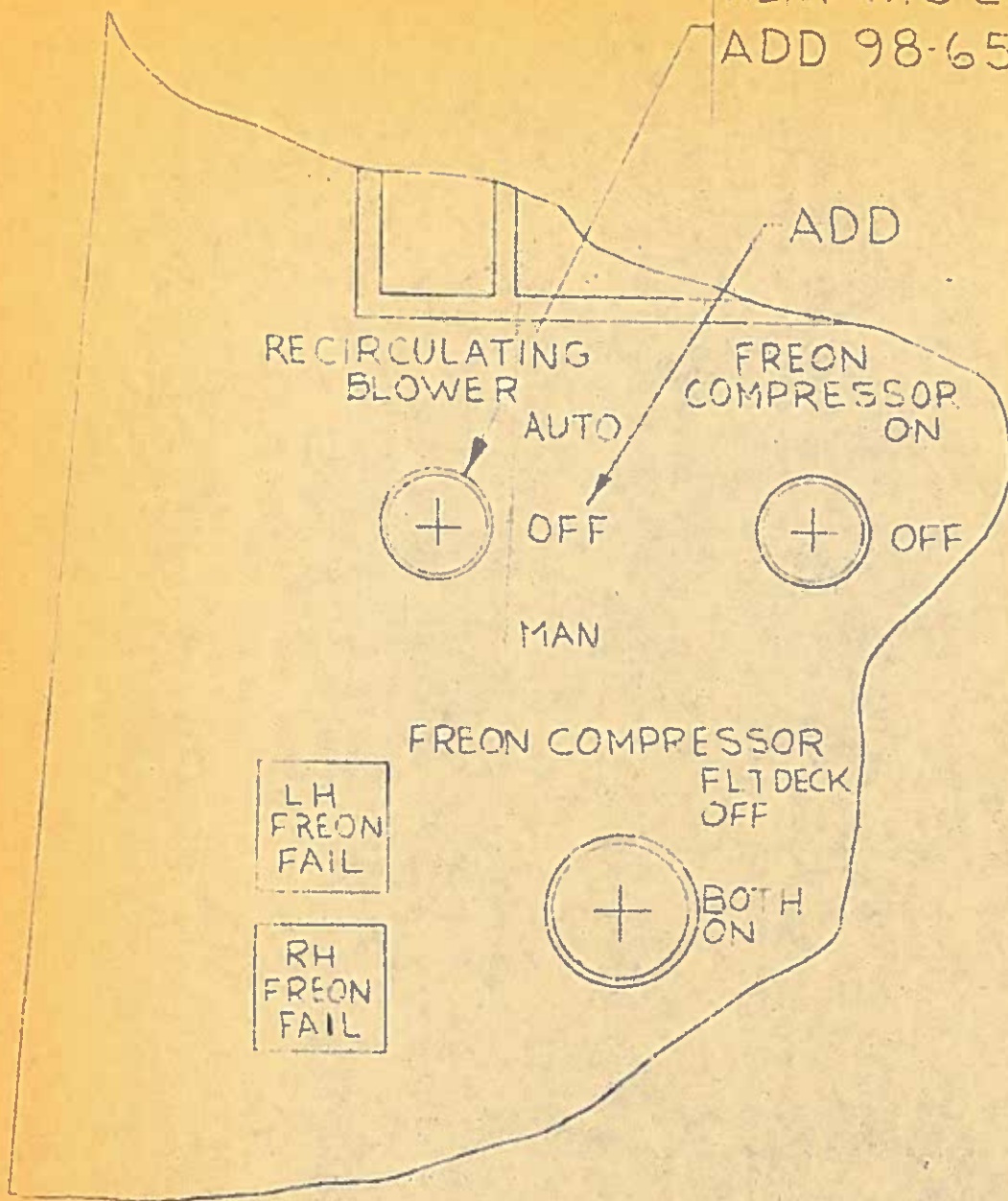
Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the specification language:

The switches which control the turbo compressors and the recirculating blower are modified to permit manual control of these systems on the ground to prevent objectional cycling under certain ambient temperature conditions. Enclosure (A) shows the modified three-position switches and the revised labeling thereof.



REM MS 25068-3  
ADD 98-65030-006



LESS OTHERWISE SPECIFIED  
DIMENSIONS IN INCHES  
TOLERANCES ON  
X .XXX ANGLES  
±.010 ±0° 30'

STRU		
STD		
GRP		
DRFT	PARK P.H	2/22

## CONVAIR PART

AIR COND-TURBO  
COMPR.& RECIRC  
FAN-MANUAL CONT.  
PROVISIONS

SCALE - 1/1

SHEET OF

DWG

A  
SIZE

# CONVAIR

A DIVISION OF  
GENERAL DYNAMICS  
CORPORATION  
SAN DIEGO, CALIFORNIA



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,400 DTD 12 May 1959

CHANGE NO. 241

MODEL: 22-2 (Convair "880")


TITLE: Hydraulic Pump Case Drain Filters, Installation of

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: To provide additional filtration for hydraulic system.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>10.0 lb</u>	OPER. WT. EMPTY <u>10.0 lb</u>	<u>8,280</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	 ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 241

Title: Hydraulic Pump Case Drain Filters, Installation of

Origin: TWA requested and Convair proposed for Delta.

Reason for Change: To provide additional filtration for hydraulic system.

Description of Change:

Page 64, Paragraph 3.15.1.10 FILTRATION:

Add the following sentence after the first sentence:

"In addition a filter, with appropriate relief valve setting, shall be installed in each of the four pump case drain lines."

Page 64A, FIGURE 3.15-1 HYDRAULIC SYSTEM:

Above illustration will be revised to show effects of this proposal.

Page A-10, APPENDIX I-C, HYDRAULIC EQUIPMENT:

Add the following item to the page:

"4 Pump Case Drain Filter, 10-micron, 6 GPM (P/N to be supplied)

Effect on Weight Empty: 10.0 pounds

Effect on Balance: 8,280 inch-pounds

Effect on Performance: None

The following shall not appear in the Specification language:

"The filter will be of the disposable paper-element-type similar to AN-6234-3, except modified for use with Skydrol "500" oil. It will be located between the case drain line connection to the bypass restrictor check valve and the check valve in the case drain return line to the reservoir."

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Airlines Inc.

MCL 10,277 DTD \_\_\_\_\_

CHANGE NO: 240

MODEL: 22-2

TITLE: Ramp and Takeoff Weight, Increase of (Revise Ship Effectivity)

ORIGIN: DELTA TWX dated 29 September 1958

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>784.0 lb</u>	<u>784.0 lb</u>	<u>770,331</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Airlines Inc.  
Change No. 240

Title: Ramp and Takeoff Weight, Increase of, (Revise Ship Effectivity)

Origin: DELTA TWX dated 29 September 1958

Reason for Change: Customer request.

Description of Change:

Page 12, Paragraph 3.1.2.2 LOADING SUMMARY:

Add weight figures after the following:

"Manufacturer's Weight Empty:  
Operating Weight Empty:"

Page 12 (Cont) SHIP EFFECTIVITY:

Delete the entire page.

Page 17, Paragraph 3.4.1 STRENGTH:

Revise the first four items in the Weight List to read as follows:

<u>From:</u>	" **Maximum Taxi Weight (1b)	185,000
	**Maximum Takeoff Weight (1b)	184,500
	***Maximum Taxi Weight (1b)	180,000
	***Maximum Takeoff Weight	178,500"

<u>To:</u>	"Maximum Taxi Weight (1b)	185,000
	Maximum Takeoff Weight (1b)	184,500"

Delete the following asterisk notes at the bottom of the page:

\*\*Applicable to Airplanes 3 through 10.  
\*\*\* Applicable to Airplanes 1 and 2.

Effect on Weight Empty: ~~7~~84.0 pounds  
Effect on Balance: ~~7~~70,331 inch-pounds  
Effect on Performance: None

# CONVAIR

CONV AIRCRAFT DIVISION  
GENERAL DYNAMICS CORPORATION  
SAINT LOUIS, MISSOURI

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER Delta Airlines Inc.

MCL 10,391 DTD 18 March 1959

CHANGE NO. 238A

MODEL: (880) 22-2

TITLE: **Increased Zero Fuel Weight**

ORIGIN: **DAL request during 17 December 1958 meeting.**

REASON FOR CHANGE: **To increase allowable total of basic operating weight plus payload, and revision to CCP No. 238.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <b>100.0 lb</b>	OPER. WT. EMPTY <b>100.0 lb</b>	<b>85,600</b> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE. \*  
**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*F. H. Sharp*  
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Airlines Inc.  
Change No. 238A

Title: Increased Zero Fuel Weight

Origin: DAL request during 17 December 1958 meeting.

Reason for Change: To increase allowable total of basic operating weight plus payload, and revision to CCP No. 238.

Description of Change:

Page 17, Paragraph 3.4.1 STRENGTH:

Revise the third item in the weight list as follows:

From: "Maximum zero fuel weight ..... 113,000"

To: "Maximum zero fuel weight ..... 117,000"

Effect on Weight Empty: ~~100.0~~ pounds  
Effect on Balance: ~~85,600~~ inch-pounds  
Effect on Performance: None

file

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,340 DTD \_\_\_\_\_

CHANGE NO: 237

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Delete position light flasher)

ORIGIN: Convair initiated

REASON FOR CHANGE: To delete position light flasher from Appendix I-C,  
as approved by CCP No. 57

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No.

Title: Specification Administrative Change (Delete position light flasher)

Origin: Convair initiated

Reason for Change: To delete position light flasher from Appendix I-C as  
approved by CCP No. 57

Description of Change:

Page A-3, APPENDIX I-C, ELECTRICAL EQUIPMENT:

Delete the following item from the Description List:

"1 Position Light Flasher"

Effect on Weight Empty: 0  
Effect on Balance 0  
Effect on Performance: None

File

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,339 DTD \_\_\_\_\_

CHANGE NO: 236

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Change AS 246C to AS 264D)

ORIGIN: Convair initiated

REASON FOR CHANGE: To update cockpit lighting specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 236

Title: Specification Administrative Change (Change AS 246C to AS 264D)

Origin: Convair initiated

Reason for Change: To update cockpit lighting specification

Description of Change:

Page 75, Paragraph 3.16.8.2.2 - INSTRUMENT PANELS:

Change the following in the first sentence:

From: "Aeronautical Standard 246C, revised 12-15-54"

To: "Aeronautical Standard 264D, revised 3-15-56"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,338 DTD \_\_\_\_\_

CHANGE NO: 235

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Indicator Light List)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To separate transfer pump and booster pump low pressure indicator lights, and to add yaw damper test lights**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* **None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Revision to Indicator Light List)

Origin: Convair initiated

Reason for Change: To separate transfer pump and booster pump low pressure indicator lights and to add yaw damper test lights.

Description of Change:

Page 81, Paragraph 3.16.11.3.1 - INDICATOR LIGHT LIST:

Revise the first item under "FLIGHT ENGINEER'S STATION" as follows:

			Electrical <u>Dimming</u>
<u>From:</u>	"18 Pump Low Press. (Fuel Sys)	Red	X
<u>To:</u>	"6 Trans. Pump Low Press. (Fuel Sys)	Amber	X
	12 Booster Pump Low Press. (Fuel Sys)	Red	X"

Add the following under "PILOTS' INSTRUMENT PANEL"

			Electrical <u>Dimming</u>
"1	Yaw Damper Test, "Hold"	Red	X
1	Yaw Damper Test, Ready	Green	X"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the Specification language:

The effect of CCP No. 210A is included in this proposal.

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,395 DTD \_\_\_\_\_

CHANGE NO: 234

MODEL: 22-2 (Convair "880")

TITLE: Two High Energy Ignition Systems, Installation of

ORIGIN: Convair initiated

REASON FOR CHANGE: To provide two high energy ignition systems in lieu of one high energy system and one low energy system

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Neg.	Neg.	Neg. INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Two High Energy Ignition Systems, Installation of

Origin: Convair initiated

Reason for Change: To provide two high energy ignition systems in lieu  
of one high energy system and one low energy system

Description of Change:

Page 72, Paragraph 3.16.7.4 - SEPARATION OF UNITS:

Revise the first sentence to read as follows:

"Electrical units that are operately separately such as fuel pumps and inverters shall not have circuit protectors, switches or wiring common to more than one unit, excluding common portions of ignition systems."

Page 78, Paragraph 3.16.9 - IGNITION CONTROL SYSTEMS:

Revise the first sentence to read as follows:

"Two high-energy-type ignition systems shall be provided; each shall be separately controlled."

Page 78, Paragraph 3.16.9.1 - LOW ENERGY IGNITION SYSTEM:

Delete the entire paragraph, including paragraph number and title.

Effect on Weight Empty: Neg.  
Effect on Balance: Neg.  
Effect on Performance: None

The following shall not appear in the Specification language:

The language effect of CCP No. 158 is included in this proposal.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,336 DTD \_\_\_\_\_

CHANGE NO: 233A

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Passenger Compartment Light Dimming)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of Paragraphs 3.16.8.3.3 and 3.16.8.7; and revision to CCP No. 233**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*J. H. Shapp*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_  
NON-RECURRING: \_\_\_\_\_  
TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Passenger Compartment  
Light Dimming)

Origin: Convair initiated

Reason for Change: To clarify the intent of Paragraphs 3.16.8.3.3  
and 3.16.8.7; and revision to CCP No. 233

Description of Change:

Page 76, Paragraph 3.16.8.3.3 - LIGHTING CONTROLS:

Revise the third and fourth sentences as follows:

From: "The general lighting throughout the passenger compartment shall be controlled from the 'cabin attendant's panel and shall have two degrees of light intensity; dim and full brilliance. The switches shall be down for the dim position, off in the center position and up for full brilliance."

To: "The general lighting throughout the passenger compartment shall be controlled from the cabin attendant panel and shall have light intensity controlled from dim to full brilliance. The switches shall be of the momentary type; and shall be down for the dim position, neutral in the center position and up for full brilliance. An on/off switch shall also be provided".

Page 78, Paragraph 3.16.8.7 - SIDE WINDOW LIGHTING:

Revise the last sentence to read as follows:

"A switch shall be installed on the aft stewardess panel to separate this lighting from the overhead cove lights".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,335 DTD \_\_\_\_\_

CHANGE NO: 232

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Sealing Blades, Stabilizer to Fuselage, Change from Interchangeable to Replaceable)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **See statement at end of CCP**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* **None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



Title: Specification Administrative Change (Sealing Blades, Stabilizer to Fuselage, Change from Interchangeable to Replaceable)

Origin: Convair initiated

Reason for Change: See statement at end of CCP

Description of Change:

Page 125, Paragraph 3.23.1 - EQUIPMENT INTERCHANGEABILITY:

Delete the below item under "1. Interchangeable Parts":

"Sealing Blades, Stabilizer to Fuselage."

Page 126, Paragraph 3.23.1 - EQUIPMENT INTERCHANGEABILITY:

Add the below item under "5. Replaceable Parts"

"Sealing Blades, Stabilizer to Fuselage"

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the Specification language:

To improve the quality of the sealing blade installation, it is proposed that the attachment holes be drilled during installation to eliminate any gaps which could be caused by an accumulation of fabrication tolerances. This potential condition cannot be corrected if interchangeability of this part is maintained. Accessibility to this area is adequate to perform the task.

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,386 DTD 18 February 1959

CHANGE NO: 231

MODEL: 22-2 (Convair "880")

TITLE: Dual Nose Gear Steering Control, Installation of

ORIGIN: Delta verbal request on 18 February 1959

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<u>49.0 lb</u>	<u>49.0 lb</u>	<u>42,015</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 231

Title: Dual Nose Gear Steering Control, Installation of

Origin: Delta verbal request on 18 February 1959

Reason for Change: Customer request.

Description of Change:

Page 38, Paragraph 3.8.4.7 STEERING CONTROL:

Revise the sentence starting in first line at top of the page and the next sentence thereafter as follows:

From: "A steering wheel located in the pilot's compartment shall be provided and arranged so that the directional sense of control is evident. The steering wheel shall be marked to indicate the neutral position of the nose wheel."

To: "Two steering wheels, one for the pilot and one for the copilot, located in the pilots' compartment shall be provided and arranged so that the directional sense of control is evident. The steering wheels shall be marked to indicate the neutral position of the nose wheel."

Figure 3.14-2 PILOT AND COPILOT CONSOLE:

Revise above illustration by relocating copilot's audio selector panel, copilot's interior lights panel and mike selector panel aft on the console. Show copilot's nose steering wheel, similar to pilot's wheel.

Effect on Weight Empty: 49.0 pounds  
Effect on Balance: 42,015 inch-pounds  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Airlines Inc.

MCL 10,327 DTD \_\_\_\_\_

CHANGE NO: 230

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Stainless steel tubing to wing center section, with exceptions)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of Par. 3.12.9.6**

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

**0**

**0**

**0**

**INCH LB.**

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change {Stainless steel tubing to wing center section, with exceptions}

Origin: Convair initiated

Reason for Change: To clarify the intent of Par. 3.12.9.6

Description of Change:

Page 51, Paragraph 3.12.9.6 - PIPING AND FITTINGS:

Revise the first sentence as follows:

From: "Fuel lines external to the fuel tanks shall be stainless steel tubing except that lines in the nacelle may be fire-proof, fatigue and abrasion resistant flexible hose."

To: "Fuel lines external to the fuel tanks and sealed structure wing center section shall be stainless steel tubing except that lines in the nacelle may be fire-proof, fatigue and abrasion resistant flexible hose."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,392 DTD 23 March 1959

CHANGE NO: 229

MODEL: 22-2 (Convair "880")

TITLE: Angle of Attack Presentation, Deletion of on Airspeed Indicator

ORIGIN: Delta Letter File No. 142 dated 19 March 1959 (J. F. NYCUM to T.B. EASTLAND JR.)

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
-3.0	-3.0	-1,269 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Angle of Attack Presentation, Deletion of on Airspeed Indicator

Origin: Delta Letter File No. 142, dated 19 March 1959 (J. F. NYCUM to T. B. EASTLAND JR.)

Reason for Change: Customer request

Description of Change:

Page 58, Paragraph 3.14.1.1 - PILOT'S INSTRUMENT PANEL:

Revise the first item in the instrument list as follows:

From: "\*One indicator, airspeed angle of attack"

To: "\*One indicator, airspeed"

Page 58, Paragraph 3.14.1.2 - COPILOT'S INSTRUMENT PANEL:

Revise the second item in the instrument list as follows:

From: "\*One indicator, airspeed angle of attack"

To: "\*One indicator, airspeed"

Page A-9, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the second item under "Kollsman Integrated Instrument System" as follows:

From: "2 Indicator, Airspeed Angle  
of Attack

Kollsman A29297-10  
plus range  
markings"

To: "2 Indicators, Airspeed

Kollsman (P/N to be supplied)

Delete the below item under "Kollsman Integrated Instrument System"

"1 Transmitter, Angle of Attack

Kollsman 68-40800-0401"

Effect on Weight Empty: -3.0 lbs.

Effect on Balance: -1,269 in/lbs

Effect on Performance: None

# . C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,393 DTD Revised 9 September 1959

CHANGE NO: 228A

MODEL: 22-2 (Convair "880")


TITLE: Passenger and Stewards Seat Bolts, Revision to

ORIGIN: Delta request (May to Harris and Parsons) 5 May 1959, and Delta TWX dated 9 September 1959

REASON FOR CHANGE: Customer request, and revision to CCP No. 228

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	 ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 228A

Title: Passenger and Stewardess Seat Belts, Revision to

Origin: Delta verbal request (May to Harris and Parsons)  
5 May 1959, and Delta TWX dated 9 September 1959.

Reason for Change: Customer request, and revision to CCP No. 228

Description of Change:

Page A-12, APPENDIX I-C, FURNISHINGS:

Revise the below items in the Description List as follows:

From: "3 Stewardess Safety Belts  
and Shoulder Harness

34 Passenger Safety Belts"

To: "3 Stewardess Seat Belts  
(with Cumming - Saunders  
3100A gold anodized buckle)  
and shoulder harnesses.

Convair  
Dwg. SK-22-91559

34 Passenger Seat Belts  
(with Cumming - Saunders  
3100A gold anodized buckle)

Convair  
Dwg. SK-22-91559"

Enclosure: (A) One copy Convair Dwg. SK-22-91559 - SEAT SAFETY BELTS -  
DELTA (For information only)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the specification language:

Vendor and part number for passenger and stewardess seat belts will  
be furnished when available.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,333 DTD \_\_\_\_\_

CHANGE NO: 227

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Miscellaneous Specification Language Revision)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the Specification.

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Miscellaneous Specification Revision)

Origin: Convair initiated

Reason for Change: To clarify the intent of the Specification

Description of Change:

Page 23, Paragraph 3.6.3 - ELEVATORS:

In the first line of the last sentence, delete the work "trim".

Page 58, Paragraph 3.14.1.1 - PILOT'S INSTRUMENT PANEL:

Delete the following 14th and 17th items from the instrument list:

"One airspeed system electrical failure warning light  
One power failure indicator (essential bus)"

Add the following item to the instrument list:

"One master caution light"

Page 104, Paragraph 3.19.1.1.3 - OBSERVER'S SEAT:

Revise the following paragraph:

From: "A folding auxiliary seat with upholstered seat, backrest and arms, shall be provided aft of the pilot for use of an observer".

To: "An upholstered auxiliary seat with backrest and arms shall be installed aft of the pilot for use of an observer".

Page 104, Paragraph 3.19.1.1.6 - PASSENGER SEATS:

Revise the first sentence to read as follows:

"The passenger seat arrangement shall be as shown on Figures 1-2 and 1-3".

Change the following in the fifth sentence:

From: "(except for club area and forward main cabin seats)"

To: "(except for club area seats)"

Page 110, Paragraph 3.19.3.1.1 - PASSENGER COMPARTMENT:

In the fourth line, change "28 inches" to "24 inches"

Effect on Weight Empty: 0

Effect on Balance:

Effect on Performance: None

# C O N V A I R

RESEARCH - GENERAL DYNAMICS CORPORATION  
FAYETTEVILLE, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. 2D-22-003

DATE \_\_\_\_\_

CUSTOMER Delta Air Lines Inc.

MCL 10,332 DTD \_\_\_\_\_

CHANGE NO. 226A

MODEL: 22-2 (Convair "880")

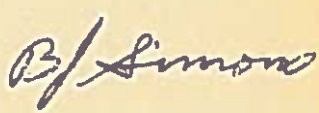
TITLE Specification Administrative Change (Revision to Pilots' Pedestal Switching)

ORIGIN Convair initiated.

REASON FOR CHANGE To supplement and revise CCP No. 226

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE \* None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:  <u>This CCP supplements but does not supersede CCP No. 226.</u></p>	 ENGINEERING APPROVAL
---	---

LATEST DATE OF ACCEPTANCE.	AIRPLANES AFFECTED.
----------------------------	---------------------

SPECIAL PROVISIONS.	EFFECT ON PRICE PER AIRPLANE RECURRING _____ NON-RECURRING _____ TOTAL _____
---------------------	---

ACCEPTED: \_\_\_\_\_

BY \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.



Title: Specification Administrative change (Revision to Pilots' Pedestal Switching)

Origin: Convair initiated.

Reason for Change: To supplement and revise CCP No. 226.

Description of Change:

Page 40, Paragraph 3.10.1.5.1 - STABILIZER TRIM CONTROL:

Delete the last two sentences from the paragraph, which read as follows:

"An override switch shall be provided on the pedestal, adjacent to the stabilizer hydraulic cutoff, capable of disconnecting all power to the electric stabilizer trim system. This switch shall be guarded in the "on" position".

Page 62F, PILOT'S AND COPILOT'S PEDESTAL

Revise above illustration to show "inboard spoiler control switch", as shown on Enclosure (A).

Page 80, Add the following new paragraph to the page, after Paragraph 3.16.11.1.1:

"3.16.11.1.2 SPEED BRAKE SPOILER WARNING HORN: An intermittent warning horn shall be provided to operate under the following conditions:

Condition One, inboard spoiler switch in the normal position:

With the speed brake spoilers extended five degrees or more, advancing any throttle lever beyond approximately the 90 percent RPM position shall cause the warning horn to sound intermittently.

Condition Two, inboard spoiler switch in the retract position:

With the airplane airborne, the speed brake spoiler handle may be advanced to any position, irrespective of throttle lever position, and the warning horn will not sound. With the airplane on the ground and the speed brake spoiler is extended five degrees or more, advancing any throttle lever beyond approximately the 90 percent position shall cause the warning horn to sound intermittently".

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 226A

Page 2 of 2

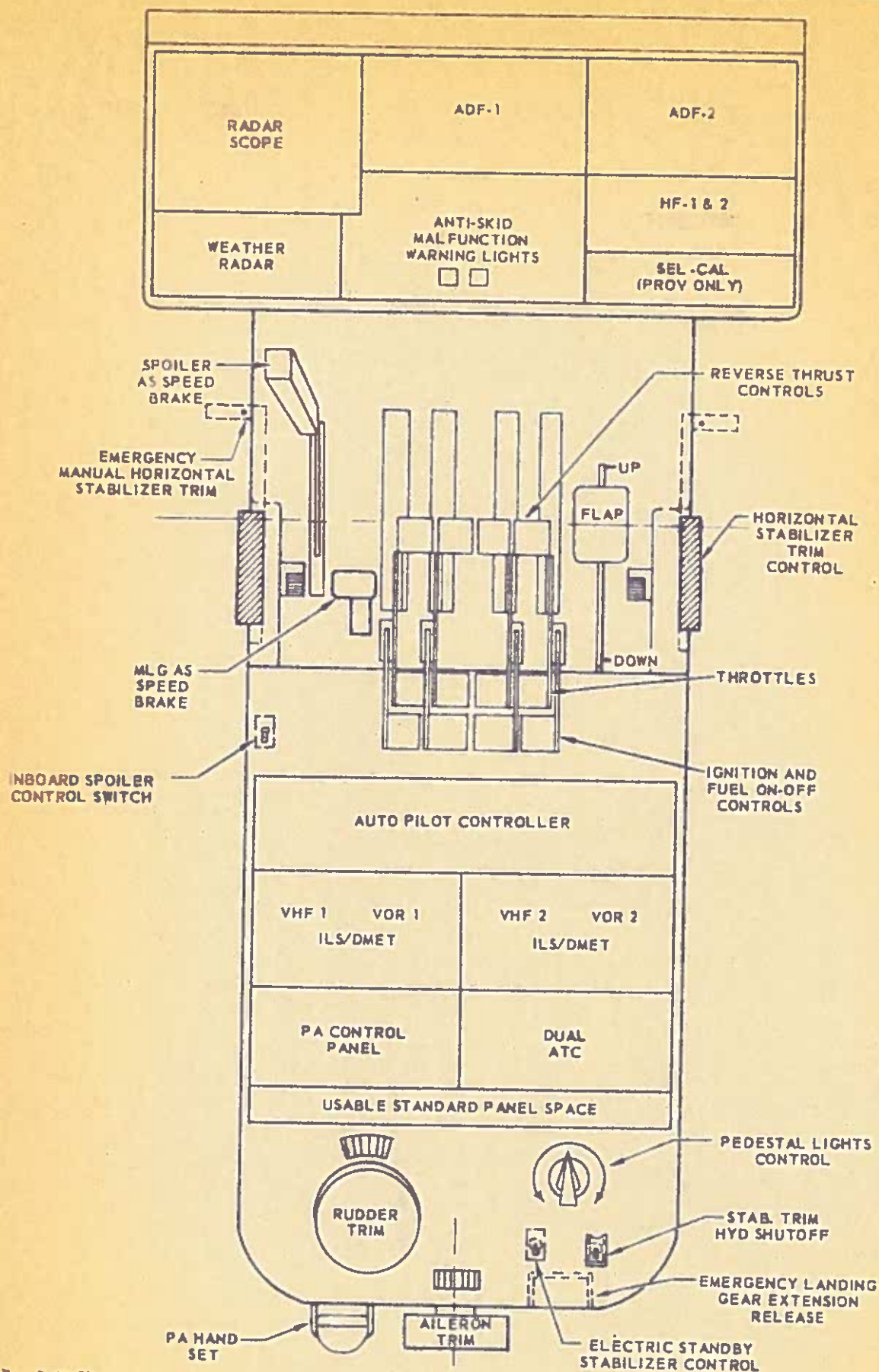
- Enclosures: (A) One copy of Figure 3.14-6, PILOT'S AND COPILOT'S  
PEDESTAL (Revised)
- (B) One copy of Convair Sketch showing labeling of Inboard  
Spoiler Switch (For information only.)

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

The following shall not appear in the Specification language:

The effect of CCP No. 140A (Stabilizer Trim Control, Electric Drive Capability) approved by Customer, is included in this proposal as concerns Para. 3.10.1.5.1.

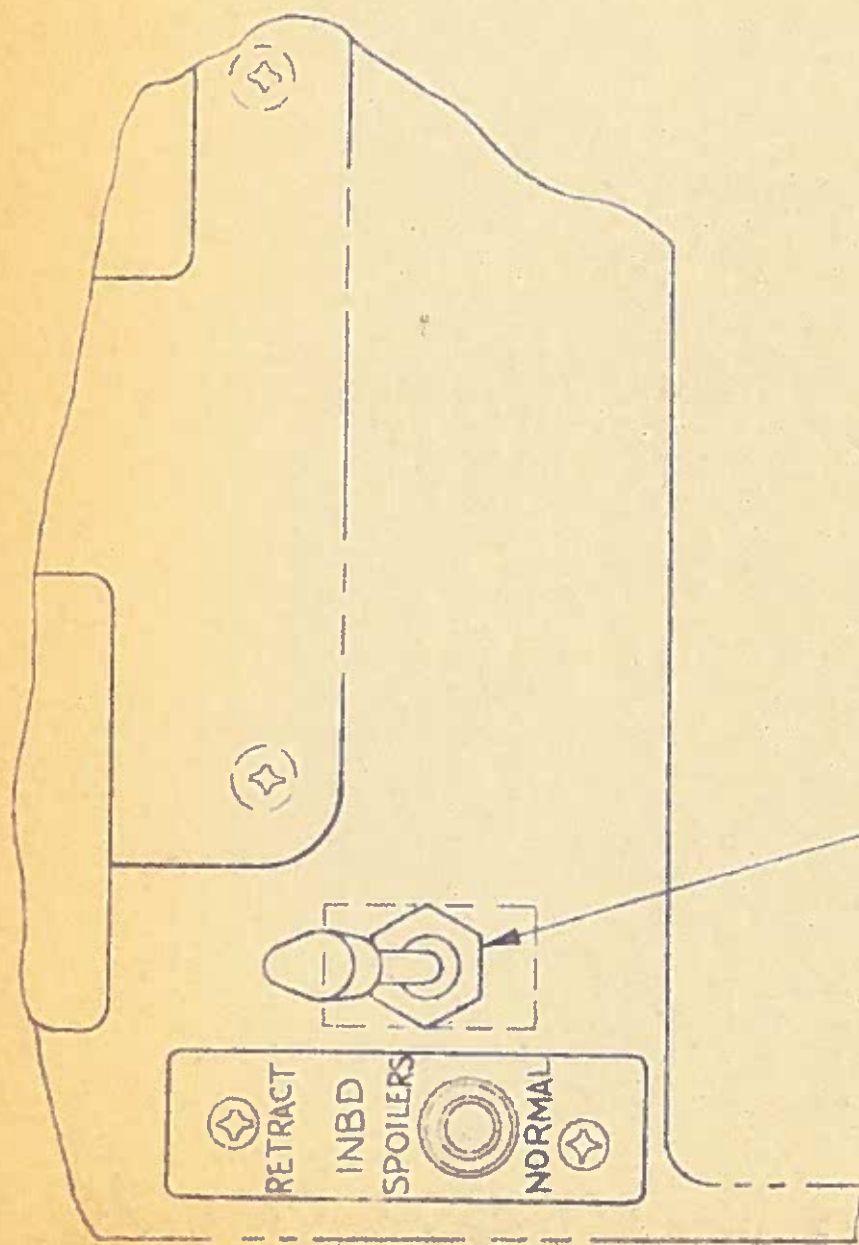




PILOT'S AND CO-PILOT'S PEDESTAL

DAL

Figure 3.14-6



LEVER-LOCK SWITCH  
MS 25125-8  
LOCKED IN BOTH POSITIONS



Title: Specification Administrative Change (provide assist ropes in flight compartment)

Origin: Convair initiated

Reason for Change: To clarify the intent of the Specification

Description of Change:

Page 114, Paragraph 3.19.6.3 EVACUATION PROVISIONS:

Revise the first sentence as follows:

From: "Suitable means shall be provided for assisting rapid evacuation from emergency exits, including assist ropes at exits over the wing, and at the forward main entrance door, and noninflatable escape chutes at each galley service door".

To: "Suitable means shall be provided for assisting rapid evacuation from emergency exits, including assist ropes at exits over the wing and over left and right hand windows in flight compartment. In addition, crew assist ropes shall be provided at the forward main entrance door, and noninflatable escape chutes at each galley service door".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,316 DTD \_\_\_\_\_

CHANGE NO: 205

MODEL: (880) 22-2

TITLE: Specification Administrative Change (Delete reference to aileron from Par. 3.5.2.6)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To make Specification compatible with the airplane.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 205

Title: Specification Administrative Change (Delete reference to  
aileron from Par. 3.5.2.6)

Origin: Convair initiated.

Reason for Change: To make Specification compatible with the airplane.

Description of Change:

Page 21, Paragraph 3.5.2.6 WING TIPS:

Revise the last sentence in paragraph as follows:

From: "The wing tip shall have a removable cap and shall extend  
aft to provide protection for the outer extremity of the  
aileron."

To: "The wing tip shall have a removable cap."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,361 DTD 18 November 1958

CHANGE NO: 203

MODEL: (880) 22-2

TITLE: **Spare Wiring-Conduit, Installation of**

ORIGIN: **TWA requested and Convair proposed for Delta**

REASON FOR CHANGE: **As above**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <b>+5.0 lb</b>	OPER. WT. EMPTY <b>+5.0 lb</b>	<b>+3,900</b> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

**None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Spare Wiring-Conduit, Installation of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above

Description of Change:

Page 69, Paragraph 3.16.5.6.1 - Conduit Location:

Add the following to the end of the paragraph:

"Two sections of one inch rigid conduit, each approximately 12 feet long, shall be installed below the cabin floor (and attached by clips to floor beams) between the front spar and the aft main wheel well to permit future routing of new wiring without removing cabin seats and floor panels".

Effect on Weight Empty:	+5.0 lbs
Effect on Balance:	+3,900 inch-lbs
Effect on Performance:	None

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,357 DTD 20 October 1958

CHANGE NO: 202

MODEL: (880) 22-2

TITLE: No. 2 Leading Edge Slat, Installation of

ORIGIN: TWA/Delta/Convair Conferences of 1 and 2 April 1958 and 17 December 1958

REASON FOR CHANGE: To reduce take-off distances.

*Cancelled*

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

4531.0 lb

4531.0 lb

446,127 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

As noted.

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: No. 2 Leading Edge Slat, Installation of

Origin: TWA/Delta/ Convair Conferences of 1 and 2 April 1958 and 17 December 1958

Reason for Change: To reduce take-off distances.

Description of Change:

Page 10, Paragraph 3.1.1.1 GUARANTEED PERFORMANCE:

Change the first four items on page as follows:

<u>From:</u> "Take-off distance at sea level over 50-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with a weight of 140,000 lb .....	Ft	±5%	4,630
Take-off distance at sea level over 50-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with a weight of 173,500 lb at lift off in standard air .....	Ft	±800	7,610
Take-off distance at sea level on 90° day over 31-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed) with weight of 173,500 lb at lift off..	Ft	±850	8,350
Take-off distance at sea level over 31-ft obstacle in accordance with CAR 4b (1.2 $V_{S1}$ used for take-off speed ) on a 90-degree F day with weight of 160,000 lb ...	Ft	±5%	6,820"
<u>To:</u> "Take-off distance at sea level in accordance with SR-422A regulations for a segmental flight path with weight of 140,000 lb at lift off on standard day .....	Ft	±5%	4,980
Take-off distance at sea level in accordance with SR-422A regulations for a segmental flight path with a weight of 173,500 lb at lift off on standard day .....	Ft	±705	6,720

Take-off distance at sea level  
on 90-degree F day in accordance  
with SR-422A regulations for a  
segmental flight path with weight  
of 173,500 lb at lift off ..... Ft    ±760    7,480

Take-off distance at sea level in  
accordance with SR-422A regula-  
tions for a segmental flight path  
on a 90-degree F day with a weight  
of 160,000 lb at lift off ..... Ft    ±5%    6,600"

## Page 11, GUARANTEED PERFORMANCE:

Under "STALL SPEED", change paragraph b. as follows:

From: "98 knots ±8 knots at 123,500 lb with landing flap setting  
used for landing distance guarantee"

To: "97 knots ±8 knots at 123,500 lb with landing flap setting  
used for landing distance guarantee"

## Page 13, Paragraph 3.1.3.1 WING:

Add the following new item to the end of the paragraph:

"Leading Edge Slats" "Extensible"

## Page 17, Paragraph 3.4.1 STRENGTH:

Change the third item in design condition list as follows:

From: "Maximum zero fuel weight (lb) ..... 113,000"

To: "Maximum zero fuel weight (lb) ..... 113,531"

## Page 17, Paragraph 3.4.2 DESIGN SPEEDS:

Add the following item after the fifth item which is "Design speed  
(flaps 1/2 down) ..... 245K or M = 0.60":

"Design speed (leading edge slat extension) ..... 245K or M = 0.60"



Page 22, Add the following new paragraph to the page, after paragraph 3.5.4.2:

"3.5.4.2.1 LEADING EDGE SLATS: Extensible leading edge slats shall be provided."

Page 41, Paragraph 3.10.2.1 LIFT AND DRAG INCREASING DEVICE SYSTEMS:

Revise the paragraph to read as follows:

"The trailing edge flaps shall be operated by hydraulic power and the leading edge slats shall be operated by electrical power. Both systems shall be controlled by a single lever on the pilot's pedestal. The trailing edge flaps shall be operated by a hydraulic motor-driven gear box located in the fuselage and powered by both hydraulic systems. The leading edge slats shall be operated by and electrical motor-driven gear box mounted in the leading edge section between screw jacks. In each system, torque tubes shall connect the gear box to mechanical actuators located adjacent to each flap section and slat section. Each system shall be irreversible to prevent flap motion from airload. Full trailing edge flap deflection shall be obtainable from either hydraulic system. An individual gear box, each powered by two electric motors, shall be provided for each leading edge slat. A monitoring system shall be provided to prevent asymmetrical flap positioning of either the trailing edge flaps or leading edge slats in the event of mechanical failure. Means shall be provided to warn the pilot that the flaps are extended and the airplane is operating at a speed in excess of the placard speed for that particular flap setting. Separate indicator lights for the left and right hand leading edge slats shall be provided which will illuminate when the slats have fully extended and will remain illuminated until the slats have fully retarded."

Page 59, Paragraph 3.14.1.3 ENGINE INSTRUMENT PANEL:

Add the following item to the instrument panel list:

"Two leading edge slat indicator lights"

Page 126, Paragraph 3.23.1 EQUIPMENT INTERCHANGEABILITY:

Add the following under paragraph "4. Inherently Interchangeable Parts"

"Leading Edge Slats"

Page A-3, APPENDIX I-C, ELECTRICAL EQUIPMENT:

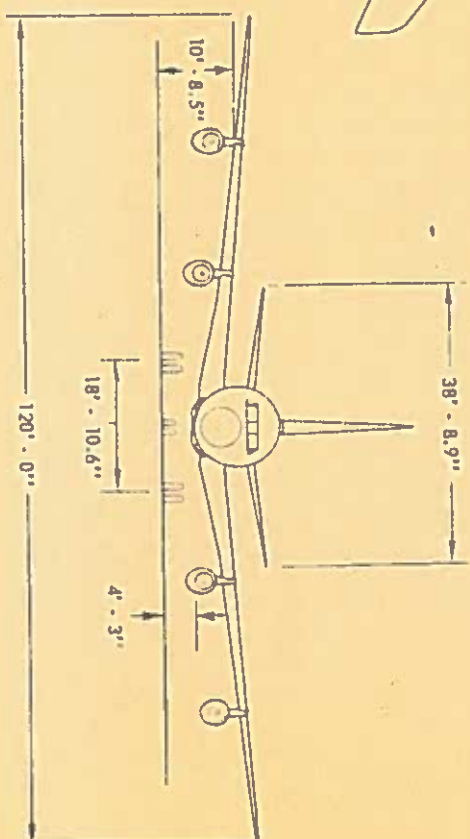
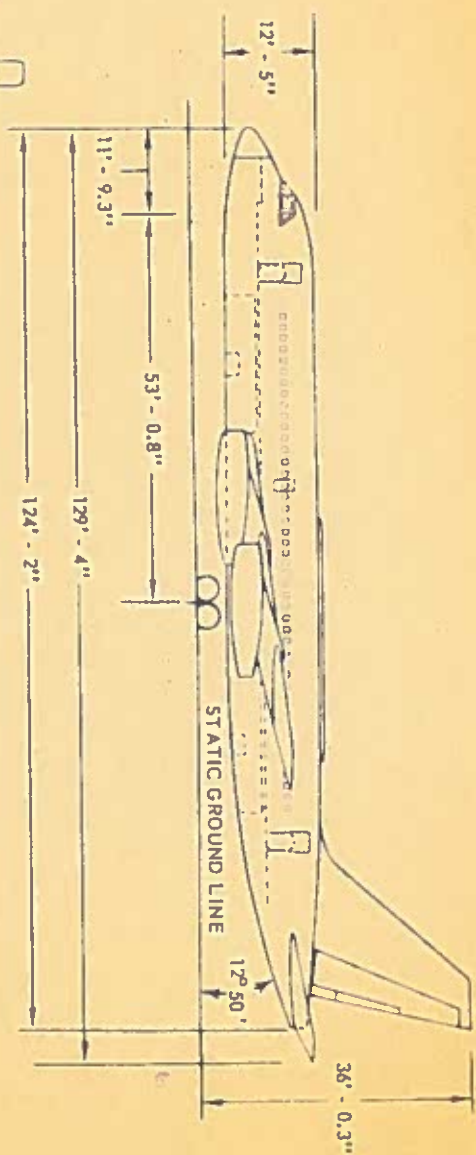
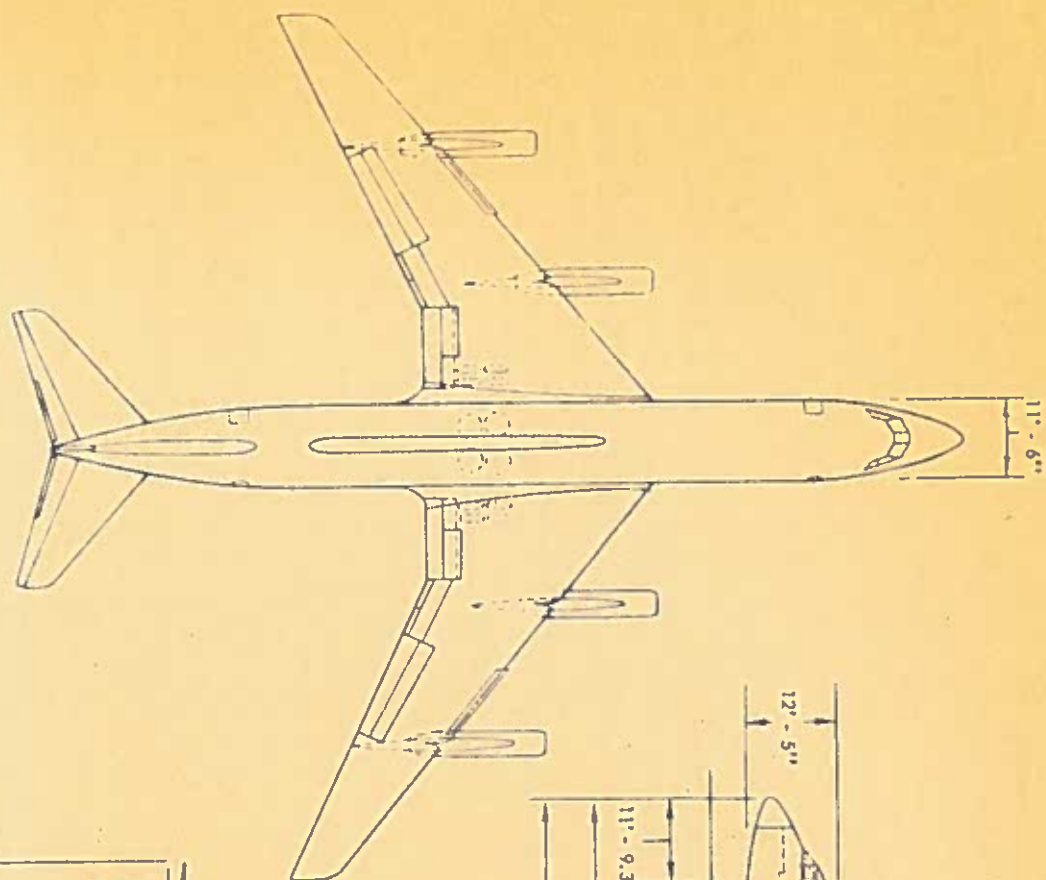
Add the following item to the Description List:

"2 Gear Boxes, Leading Edge Slat Actuating (with two electric motors each)"

- Enclosures: (A) One copy of Figure 1-1, GENERAL ARRANGEMENT (for information only, figure in Specification will be revised to show leading edge slats on acceptance of this change)
- (B) One copy of Convair Drawing SD-58-03147 - WING L. E. SLAT (for information only)

Effect on Weight Empty: ~~4~~531.0 pounds  
Effect on Balance: ~~4~~46,127 inch-pounds  
Effect on Performance: As noted





# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,315 DTD \_\_\_\_\_

CHANGE NO: 201

MODEL: (880) 22-2

TITLE: Micro Switch, Lavatory, Deletion of

ORIGIN: Delta requested by Letter, File 142, dated 31 October 1958

REASON FOR CHANGE: Customer request.

Rejected

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Negligible	Negligible	Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	ENGINEERING APPROVAL
---	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 201

Title: Micro Switch, Lavatory, Deletion of

Origin: Delta requested by Letter, File 142, dated 31 October 1958

Reason for Change: Customer request.

Description of Change:

Page 107, Paragraph 3.19.2.2 LAVATORIES:

Change the last sentence as follows:

From: "The lavatory lights shall dim when the door is open."

To: "The aft lavatory lights shall dim when the door is opened."

Effect on Weight Empty: Negligible  
Effect on Balance: Negligible  
Effect on Performance: None

The following shall not appear in the Specification language:

This proposal covers the removal of the micro switch in the forward lavatory only.

# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Airlines Inc.

MCL 10,331 DTD \_\_\_\_\_

CHANGE NO: 225

MODEL: (880) 22-2

TITLE: **Specification Administrative Change (Relocation of the Emergency Air Brake Control Handle**

ORIGIN: **Convair Initiated**

REASON FOR CHANGE: **To improve flexibility of the nose wheel steering and emergency braking**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	ENGINEERING APPROVAL
--	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Airlines Inc.  
Change No. 225

Title: Specification Administrative Change (Relocation of the Emergency Air Brake Control Handle)

Origin: Convair Initiated

Reason for Change: To improve flexibility of the nose wheel steering and emergency braking

Description of Change:

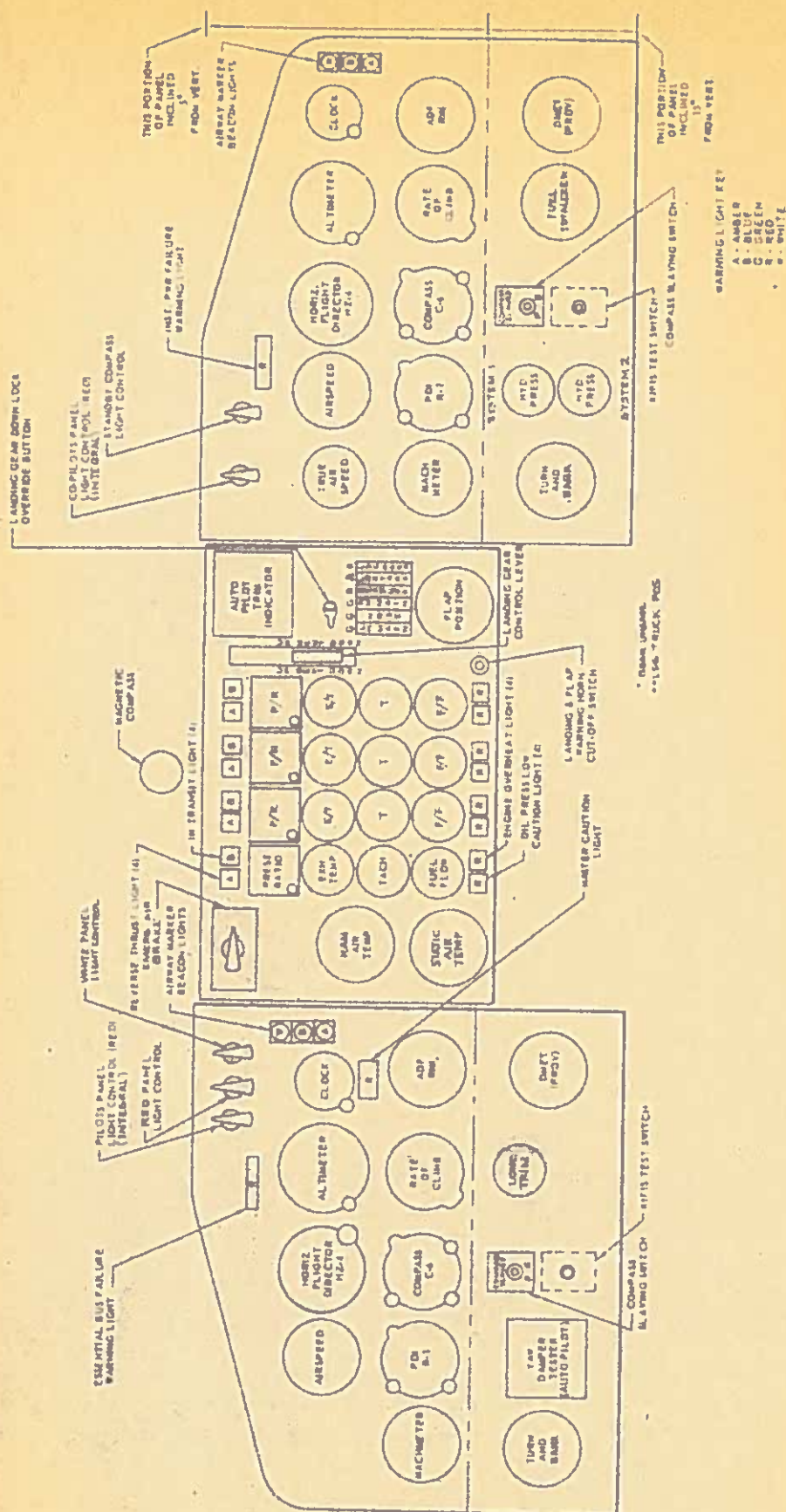
Page 62A, Figure 3.14-1 PILOT'S AND COPILOT'S INSTR. PANELS:  
Page 62B, Figure 3.14-2 PILOT AND COPILOT CONSOLE:

"This proposal has no effect on the specification language but relocates the Emergency Air Brake control handle from the pilot's console to the pilot's and copilot's instrument panel and rearranges various other instruments as shown in the attached revised illustrations."

Enclosure (A) One (1) copy of the following figures:

"Figure 3.14-1 Pilot's and Copilot's Instrument Panels:  
Figure 3.14-2 Pilot and Copilot Console:"

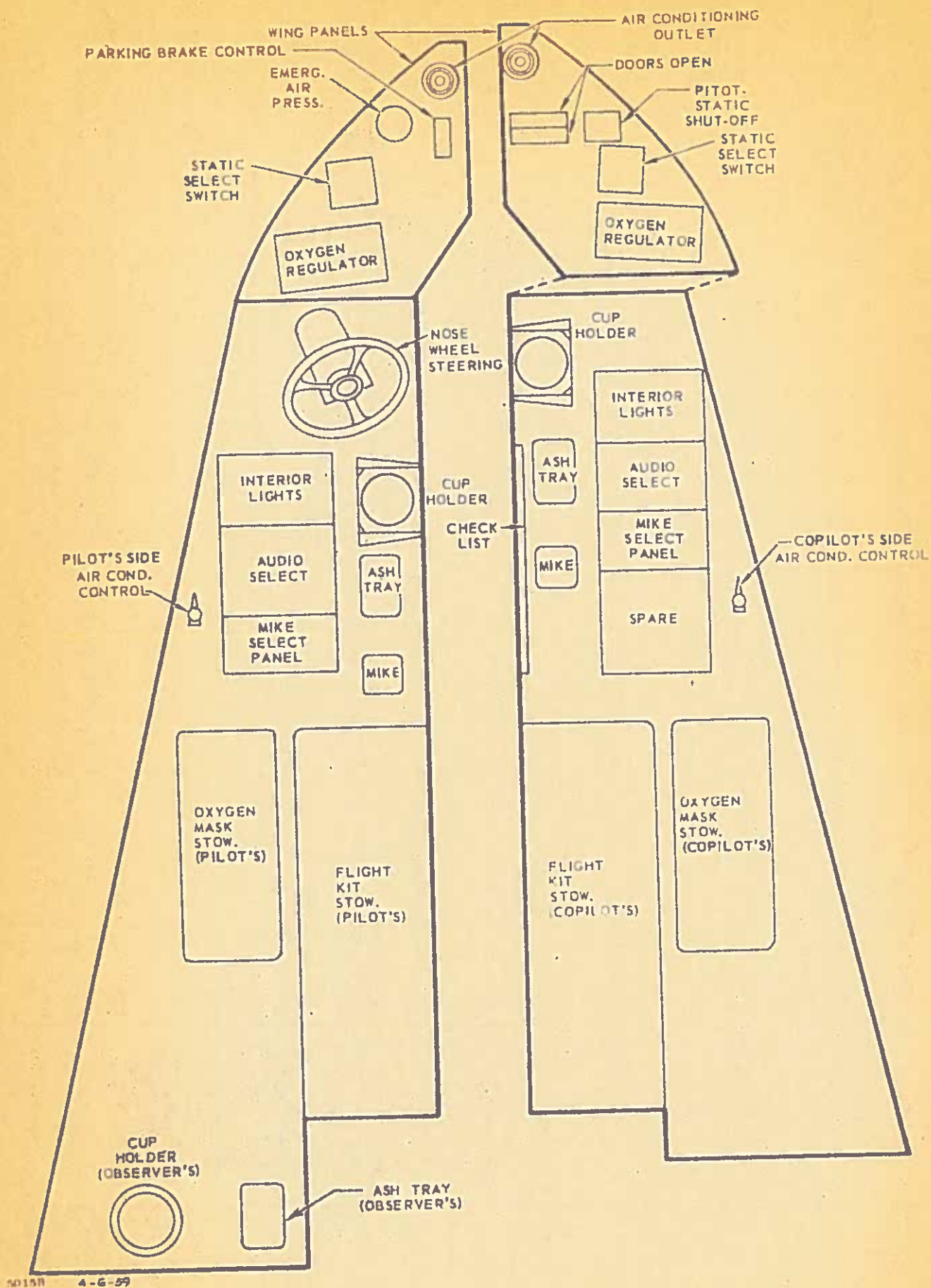
Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



PILOT'S AND COPILOT'S INSTRUMENT PANELS  
DAL

FIGURE 3.14-1





PILOT'S AND COPILOT'S CONSOLE AND WING PANELS  
DAL

FIGURE 3.14-2

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,330 DTD \_\_\_\_\_

CHANGE NO: 224

MODEL: 22-2 (Convair "880")


TITLE: **Specification Administrative Change (Oxygen System, Clarification of)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To incorporate an oxygen system revision into the specification consistent with CCP No. 138 (Cabin Interior Modification and Installation of 12-Place Club Area)**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	 ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Specification Administrative Change (Oxygen System,  
Clarification of)

Origin: Convair initiated

Reason for Change: To incorporate an oxygen system revision into the  
specification consistent with CCP No. 138 (Cabin  
Interior Modification and Installation of 12-Place  
Club Area)

Description of Change:

Page 114, Paragraph 3.19.5.4 - INDIVIDUAL OUTLETS:

REVISE the second sentence to read as follows:

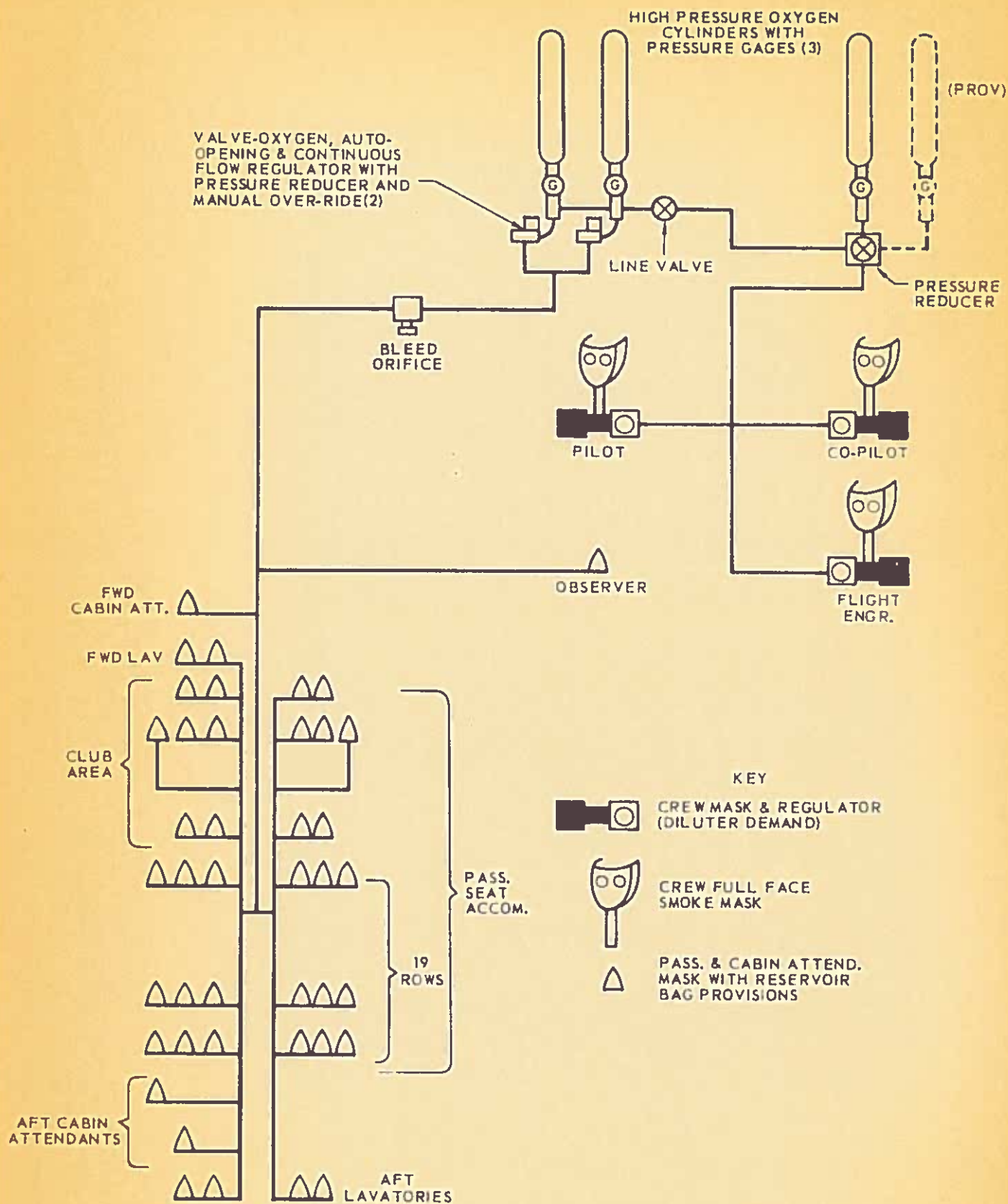
"Provisions for one additional mask shall be made for each seat  
row in the main cabin area (three masks for each of the 19 rows  
on both sides of the airplane) to provide for emergency oxygen for  
children in arms. The oxygen outlet system for the club area shall  
be as shown on Figure 3.19-4".

Figure: 3.19-4 - GASEOUS OXYGEN SYSTEM:

Above figure will be replaced in the specification with Enclosure (A)  
on Customer approval of this CCP.

Enclosure (A) One copy of Figure 3.19-4 - GASEOUS OXYGEN SYSTEM

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



GASEOUS OXYGEN SYSTEM  
 DELTA

Figure 3.19-4



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,329 DTD \_\_\_\_\_

CHANGE NO: 223

MODEL: 22-2 (Convair "880")

TITLE: **Specification Administrative Change (Deletion of downstream fuel screen, and clarify intent of Par. 3.12.9.9.1)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: 1. To eliminate possibility of fuel flow blockage due to screen icing  
2. To clarify the intent of third sentence in Paragraph 3.12.9.9.1

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* **None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	ENGINEERING APPROVAL
---	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 223

Page 1 of 1

Title: Specification Administrative Change (Deletion of downstream fuel screen, and clarify intent of Par. 3.12.9.9.1)

Origin: Convair initiated

Reason for Change: 1. To eliminate possibility of fuel flow blockage due to screen icing  
2. To clarify the intent of third sentence in Paragraph 3.12.9.9.1

Description of Change:

Page 52, Paragraph 3.12.9.8 - STRAINERS AND FILTERS:

Delete the first sentence which reads as follows:

"An 8-10 mesh fuel screen which can be readily drained and serviced shall be installed in the fuel supply downstream of the emergency shutoff valve connection to each engine."

Page 52, Paragraph 3.12.9.9.1 - QUANTITY GAGES:

Revise the third sentence as follows:

From: "The fuel gage units in the tanks shall be provided with disconnect plugs and receptacles and shall be designed to permit installation or replacement without special tools."

To: "The fuel gage units in the tanks shall be provided with terminal posts which shall be designed to permit installation or replacement without special tools."

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,369 DTD 6 January 1959

CHANGE NO: 222

MODEL: (880) 22-2

TITLE: Brake Overheat Detectors, Installation of

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: To indicate a brake overheat condition.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY <u>16.0 lb</u>	OPER. WT. EMPTY <u>16.0 lb</u>	<u>19,590</u> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	ENGINEERING APPROVAL
---	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 222

Title: Brake Overheat Detectors, Installation of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: To indicate a brake overheat condition.

Description of Change:

Page 35, Add the following new paragraph, after Paragraph 3.8.2.2.1:

"3.8.2.2.2 BRAKE OVERHEAT DETECTORS: A brake overheat detection system consisting of the following shall be installed:

- a. One heat detector element in each main and nose wheel inner axle in wheel drum area.
- b. Indicator warning light and test switch on fire control panel.
- c. Two control units in electrical rack, two control units in main wheel well and one control unit in nose section under floor.
- d. Two circuit breakers on circuit breaker panel.
- e. All required wiring and nameplates."

Effect on Weight Empty: 16.0 pounds  
Effect on Balance: 9,590 inch-pounds  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,387 DTD Revised 25 September 1959

CHANGE NO: 221A

MODEL: 22-2 (Convair "880")


TITLE: **Fifth Seat in Cockpit, Structural Provisions for**

ORIGIN: **Delta verbal request**

REASON FOR CHANGE: **Customer request, and revision to CCP No. 221**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<b>+11.0 lb</b>	<b>+11.0 lb</b>	<b>+3,190 INCH LB.</b>

EFFECT ON GUARANTEED PERFORMANCE: \*  
**None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 <b>ENGINEERING APPROVAL</b>

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 221A

Title: Fifth Seat in Cockpit, Structural Provisions for

Origin: Delta verbal request

Reason for Change: Customer request, and revision to CCP No. 221

Description of Change:

Page 27, Paragraph 3.7.1.3.1 - FLIGHT COMPARTMENT:

Revise the paragraph to read as follows:

"The pilots' compartment shall be arranged with the pilot on the left side, the copilot on the right side and a control pedestal between. An observer's seat shall be provided aft of the pilot. A flight engineer's station shall be provided aft of the copilot's station, and structural provisions for a fifth seat shall be made aft of the observer's seat".

Page 104, Add the following new paragraph after Paragraph 3.19.1.1.3:

"3.19.1.1.3.1 FIFTH COCKPIT SEAT: (Provisions only) Structural provisions for a fifth seat shall be made aft of the observer".

The below illustrations will be revised to show provisions for a fifth flight compartment seat, on Customer acceptance of this proposal:

- a. Figure 1-2 Standard Seating Arrangement
- b. Figure 1-3 Alternate Seating Arrangement

Effect on Weight Empty: +11.0 lbs  
Effect on Balance: +3,190 inch/lbs  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,389 DTD 19 February 1959

CHANGE NO: 220

MODEL: (880) 22-2

TITLE: Flight Recorder, Installation of

ORIGIN: TWA requested and Convair proposed for Delta.

REASON FOR CHANGE: As above.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

732.0 lb

732.0 lb

731,680 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 220

Title: Flight Recorder, Installation of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above.

Description of Change:

Page 62(cont), Paragraph 3.14.3.8 FLIGHT DATA RECORDING PROVISIONS:

Revise the paragraph title and the paragraph to read as follows:

"FLIGHT DATA RECORDER: A Lockheed Air Service Flight Recorder No. 4001550 Model C and Amplifier No. 4001551 shall be installed, with the necessary wiring, static and pitot lines, in the hydraulic compartment."

Page A-7a, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following item to the page:

"FLIGHT DATA RECORDER

Flight Recorder	Lockheed Air Service	4001550 Model C
Amplifier	Lockheed Air Service	4001551"

FIGURE 3.17-2, PITOT STATIC SYSTEM SCHEMATIC

Revise above illustration to show connections to Flight Recorder.

Effect on Weight Empty: ~~4~~32.0 pounds  
Effect on Balance: ~~4~~31,680 inch-pounds  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,326 DTD \_\_\_\_\_

CHANGE NO: 219

MODEL: (880) 22-2

TITLE: Specification Administrative Change (Lavatory Toilet Water System Schematic)

ORIGIN: Convair initiated.

REASON FOR CHANGE: To provide an up to date Lavatory Toilet Water System Schematic.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 219

Title: Specification Administrative Change (Lavatory Toilet Water System Schematic)

Origin: Convair initiated.

Reason for Change: To provide an up to date Lavatory Toilet Water System Schematic.

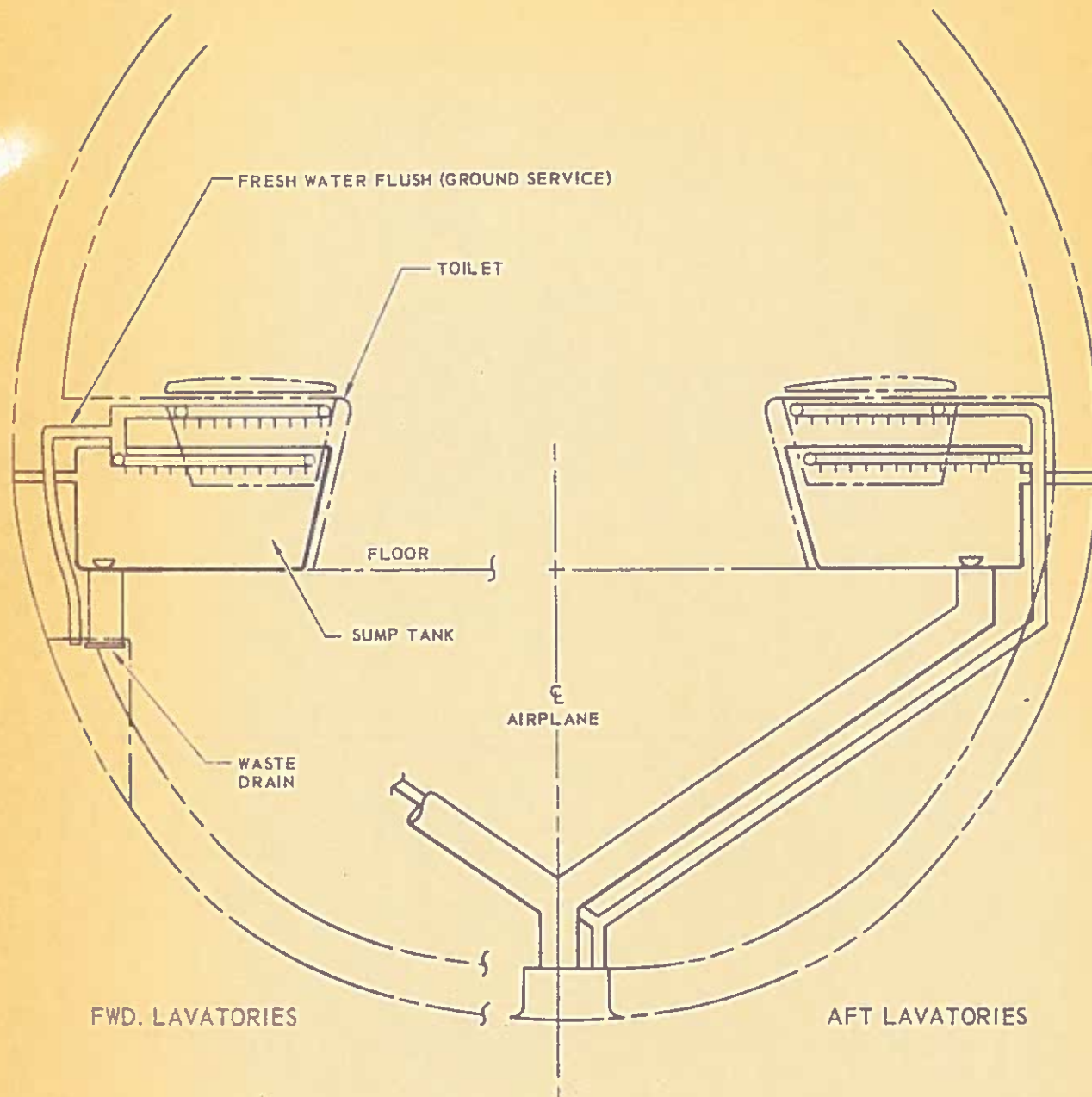
Description of Change:

Delete FIGURE 3.19-3 - LAVATORY TOILET WATER SYSTEM SCHEMATIC  
from Specification and replace with Enclosure (A).

Enclosure: (A) One copy Page 115f - FIGURE 3.19-3 - LAVATORY TOILET  
WATER SYSTEM SCHEMATIC

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None





LAVATORY TOILET WATER SYSTEM - SCHEMATIC

Figure 3.19-3

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,384 DTD 17 February 1959

CHANGE NO: 218A

MODEL: 22-2 (Convair "880")

TITLE: Redesign of Exterior Markings and Color Schemes

ORIGIN: Verbal request by J. F. Nycum of Delta to S. J. Harris of Convair on 17 February 1959 and Delta Letter, File 142, (Nycum to Digges) dated 19 November 1959

REASON FOR CHANGE: Customer request, and revision to CCP No. 218

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

See Weight breakdown at end of this proposal

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

*B. J. Simmons*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR 100-112174



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 218A

Title: Redesign of Exterior Markings and Color Schemes

Origin: Verbal request by J. F. Nycum of Delta to S. J. Harris of Convair on 17 February 1959 and Delta Letter, File 142 (Nycum to Digges) dated 19 November 1959.

Reason for Change: Customer request and revision to CCP No. 218

Description of Change:

This portion of the proposal is applicable to Delta Airplane No. 1 and Airplanes 4 through 10, and has no effect on Specification language. The proposal consists of change to exterior markings and color schemes in accordance with Delta Exterior Marking Drawing 22-98002, revised in accordance with Delta Letter, File 142, (Nycum to Digges) dated 19 November 1959, and to specify that all exterior paint shall consist of "Epoxy" prime, Spec. 0-03021 - Type I and "Epoxy" top coat, Spec. 0-03021 - Type II.

Weight and Balance Effects  
for Airplane 1 and Airplanes  
4 through 10.

Effect on Weight Empty: +82.0 Lbs.  
Effect on Balance: +76,040 In/Lbs  
Effect on Performance: None

This portion of the proposal is applicable to Delta Airplanes No. 2 and 3, which is the same as the above portion except that the upper part of the airplane will be painted with white enamel and enamel markings.

Weight and Balance Effects  
for Airplanes No. 2 and 3

Effect on Weight Empty: +61.0 Lbs.  
Effect on Balance: +56,573 In/Lbs.  
Effect on Performance: None

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,385 DTD \_\_\_\_\_

CHANGE NO: 216

MODEL: (880) 22-2

TITLE: **Mach and Airspeed "Never Exceed" Warning System, Installation of**

ORIGIN: **Convair initiated (Article 5, Par (e) of Purchase Agreement)**

REASON FOR CHANGE: **FAA requirement for certification of the airplane.**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
<b>+6.0 lbs</b>	<b>+6.0 lbs</b>	<b>+1,803</b> INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* **None**

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	ENGINEERING APPROVAL
---	----------------------

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: \_\_\_\_\_ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



Title: Mach and Airspeed "Never Exceed" Warning System, Installation of

Origin: Convair initiated (Article 5, Par (e) of Purchase Agreement)

Reason for Change: FAA requirement for certification of the airplane.

Description of Change:

Page 62 (Cont), Add following new paragraph after Paragraph 3.14.3.10:

"3.14.3.11 MACH AND AIRSPEED WARNING SYSTEM: A Mach and indicated airspeed "NEVER EXCEED" warning system consisting of the following shall be installed:

- a. A momentary switch on pilot's instrument panel adjacent to and outboard of the airspeed indicator. The switch shall be labeled "VNE-MNE WARN TEST."
- b. A warning bell in the flight compartment.
- c. One interrupter and one Mach/indicated airspeed switch in the electrical compartment area.
- d. The necessary wiring, and a circuit breaker (emergency d-c bus) on circuit breaker panel."

Page 62a, FIGURE 3.14-1 PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Revise above illustration to show Mach/airspeed warning test switch.

Page 89, Paragraph 3.16.17.1 EMERGENCY POWER:

Under "Warning" add the following item to the list:

"8. Mach/Airspeed Warning System"

Page 102B, FIGURE 3.17-2 PITOT STATIC SYSTEM SCHEMATIC:

Revise above illustration to show connection for the Mach/airspeed warning system.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 216

Page 2 of 2

Page A-7a, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following to the page:

"MACH/AIRSPED WARNING SYSTEM

1	Warning Bell	Edwards	168-2C
1	Mach/Airspeed Switch	Pioneer Central	Type 31000
1	Interrupter	Radar Relay Inc.	R-1487"

Effect on Weight Empty: +6.0 lbs  
Effect on Balance: +1,803 Inch-lbs  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAFETY HILL, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: 7D- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,324 DTD \_\_\_\_\_

CHANGE NO. 215

MODEL: (880) 22-2

TITLE: <b>Specification Administrative Change (Machine countersink in attachments to supports.)</b>			
ORIGIN: <b>Convair initiated.</b>			
REASON FOR CHANGE: <b>To provide an alternate method to insure flushness.</b>			
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY  <div style="text-align: center; font-weight: bold;">0</div>	OPER. WT. EMPTY  <div style="text-align: center; font-weight: bold;">0</div>	<div style="text-align: center; font-weight: bold;">0</div> INCH LB.	
EFFECT ON GUARANTEED PERFORMANCE: <b>None</b>			
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL.  ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES.		ENGINEERING APPROVAL	
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:	
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON RECURRING: _____ TOTAL: _____	

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 215

Title: Specification Administrative Change (Machine countersink in attachments to supports.)

Origin: Convair initiated.

Reason for Change: To provide an alternate method to insure flushness.

Description of Change:

Page 31, Paragraph 3.7.1.6.5 CARGO COMPARTMENT FLOORING:

Revise the last sentence as follows:

From: "Attachments to transverse or longitudinal supports shall employ extra depth dimples to insure flushness."

To: "Attachments to transverse or longitudinal supports shall employ extra depth dimples or machine countersinking to insure flushness."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,388 DTD 18 February 1959

CHANGE NO: 214

MODEL: (880) 22-2

TITLE: Crew Member Facilities at Observer's Station, Installation of

ORIGIN: Delta verbal request to S. J. HARRIS of Convair.

REASON FOR CHANGE: Customer request.

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

+7.0 lb

+7.0 lb

+1,818 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND  
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON  
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 214

Page 1 of 2

Title: Crew Member Facilities at Observer's Station, Installation of

Origin: Delta verbal request to S. J. HARRIS of Convair.

Reason for Change: Customer request.

Description of Change:

Page 99, Paragraph 3.17.2.3.5 SERVICE INTERPHONE:

Add the below sentence after the sentence which reads as follows:

"The chime and light installed at the flight deck also shall be activated from the nose wheel well, ground power plug, tail cone and main gear area.":

"An ON/OFF switch and microphone jack shall be installed at observer's station on left hand console."

Page 110, Paragraph 3.19.2.8.12 COFFEE CONTAINERS:

Revise the sentence as follows:

From: "Individual coffee cup holders shall be provided for each crew member except observer."

To: "Individual coffee cup holders shall be provided for each crew member and the observer."

Page 114, Paragraph 3.19.5.5 MASKS:

Revise the paragraph to read as follows:

"Provisions shall be made for stowing three crew supplemental masks and one observer's supplemental mask in the flight station. Provisions shall be made for stowing passenger supplemental masks where one will be accessible for installation and use by each passenger within 15 seconds. The flight crew and observer system shall be so arranged that the masks can be continuously plugged in and available for immediate use. Oxygen outlets shall be located at the flight crew and observer's stations, and at all passenger seats and cabin attendants' stations as shown on Figure 3.19-4. Two oxygen outlets shall be provided in each lavatory. The flight crew outlets shall be provided with a tee valve to allow installation of two masks at each station. A "Scottoramic" protective mask shall be installed and connected to one side of the tee outlet at each flight crew station. A supplemental mask shall be provided for each cockpit station (including observer's station) and shall be stowed accessible to the station with the occupant of the station in his normal seated position. Passenger masks shall be of the disposable type."



## Page 115D, FIGURE 3.19-4 GASEOUS OXYGEN SYSTEM:

Above figure will be revised to include observer in crew oxygen supply system, less smoke mask.

## Page A-15, APPENDIX I-C, OXYGEN EQUIPMENT:

Change the below item in the Description List as follows:

From: "3 Regulators (Crew diluter-demand-type)"

To: "4 Regulators (Crew observer diluter-demand-type)      Ard Equipt.      14950-8"

Add the following item to the Description List:

"4 Oxygen Mask Assembly  
(Crew and observer supplemental)      Scott      A-14"

Effect on Weight Empty: +7.0 pounds  
Effect on Balance: +1,818 inch-pounds  
Effect on Performance: None

The following shall not appear in the Specification language:

The effect of CCP No. 184A (specifying two oxygen outlets in each lavatory) is included in this proposal.

# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10.378 DTD 27 January 1959

CHANGE NO: 213

MODEL: (880) 22-2

TITLE: Potable Water System Drain Fitting, Airterra, Installation of

ORIGIN: TWA requested and Convair proposed for Delta

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	Negligible INCH LB.
<u>1.0 lb</u>	<u>1.0 lb</u>	

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_



CONVAIR: SD

Delta Air Lines Inc.  
Change No. 213

Title: Potable Water System Drain Fitting, Airterra, Installation of

Origin: TWA requested and Convair proposed for Delta

Reason for Change: As above

Description of Change:

Page 106 (Cont), Paragraph 3.19.2.1.4 WATER SYSTEM:

Revise the third sentence as follows:

From: "The system shall provide for draining on the ground."

To: "The system shall provide for draining on the ground through a flush-type fitting equipped with a hose attachment for drain line."

Page 115B, FIGURE 3.19-2 WATER SYSTEM:

Above illustration will be revised to show flush, hose attachment for drain line.

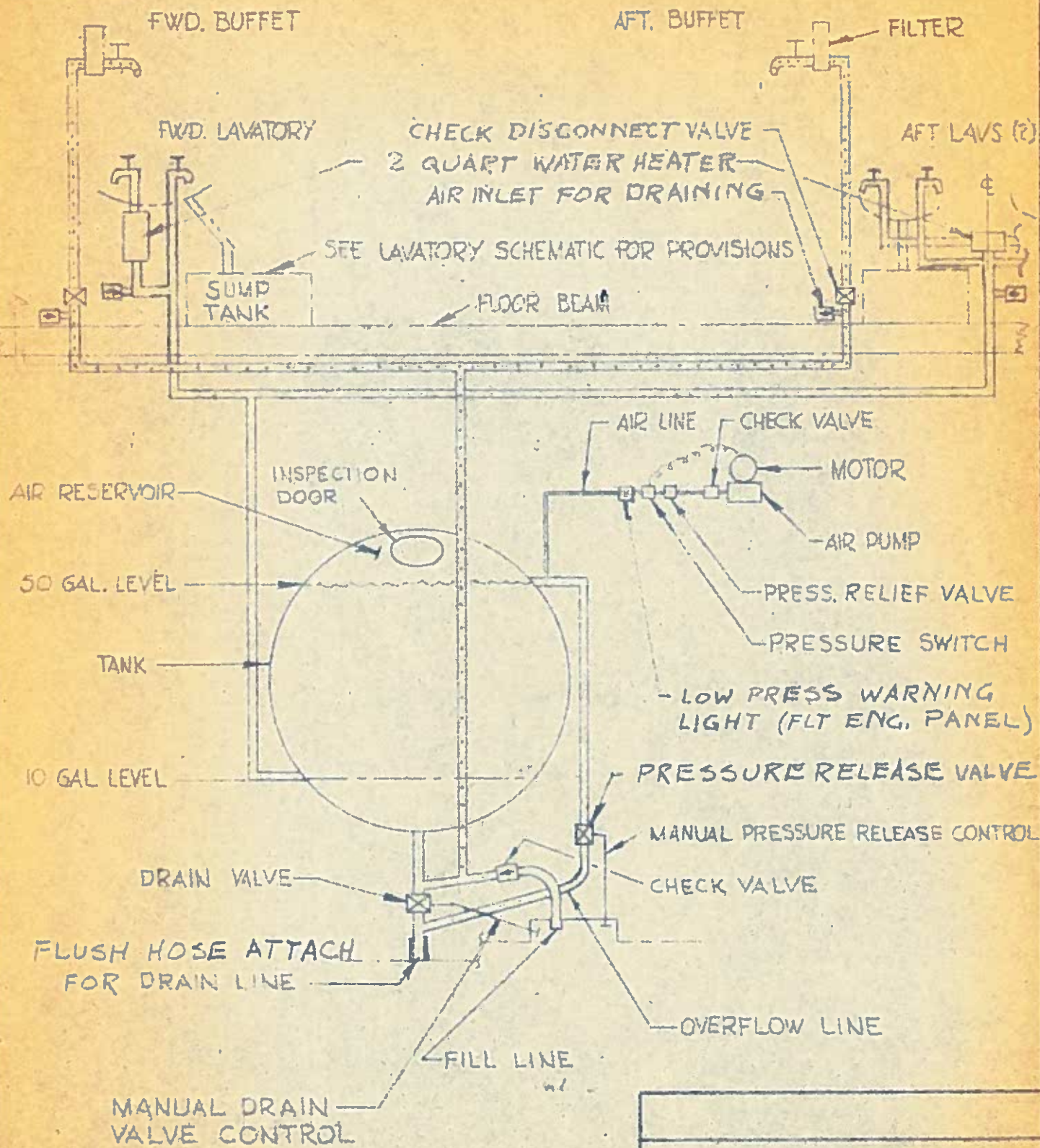
Enclosure: (A) One copy Figure 3.19-2 WATER SYSTEM SCHEMATIC (for information only)

Effect on Weight Empty: 1.0 pound  
Effect on Balance: Negligible  
Effect on Performance: None

ANALYSIS  
PREPARED BY  
CHECKED BY *Edling*  
REVISED BY

**CONVAIR**  
A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO

PAGE 115B  
REPORT NO. 2D-22-003  
MODEL CAL.  
DATE 2-28-58



**WATER SYSTEM  
SCHEMATIC**

FIGURE 3.19-2



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,323 DTD \_\_\_\_\_

CHANGE NO: 212

MODEL: (880) 22-2

TITLE: Specification Administrative Change (Clarification of Specification language in Paragraph 3.17.3.1.1).

ORIGIN: Convair initiated.

REASON FOR CHANGE: To clarify the intent of the Specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	
	ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 212

Title: Specification Administrative Change (Clarification of Specification language in Paragraph 3.17.3.1.1).

Origin: Convair initiated.

Reason for Change: To clarify the intent of the Specification.

Description of Change:

Page 100, Paragraph 3.17.3.1.1 ANTENNAS:

Revise the second sentence as follows:

From: "Two flush type antennas shall be located in the underside of the wing in the trailing edge."

To: "Two flush-type antennas shall be located on the top of the fuselage as shown on Figure 3.17-3."

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,371 DTD 13 January 1959

CHANGE NO: 211

MODEL: (880) 22-2

TITLE: Dual ATC Transponder, Provisions for

ORIGIN: Verbal request of C. J. May of Delta on 12 January 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: right;">ENGINEERING APPROVAL</p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 211

Title: Dual ATC Transponder, Provisions For

Origin: Verbal request of C. J. May of Delta on 12 January 1959

Reason for Change: Customer request

Description of Change:

This proposal has no effect on Specification language and consists only of changing the provisions for a Dual ATC Transponder Beacon System from "Collins 621A-1" to "Wilcox 714B".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,322 DTD \_\_\_\_\_

CHANGE NO: 210C

MODEL: 22-2 (Convair "880")

TITLE: Specification Administrative Change (Incorporation of Indicator Light List)

ORIGIN: Detail Specification Requirements, and R.F.C. No. 3.16-36

REASON FOR CHANGE: Revision to CCP No. 210A, and to include the effects of CCP No. 210B.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: center;"><i>B. J. Simmons</i></p> <p style="text-align: center;">ENGINEERING APPROVAL</p>
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Title: Specification Administrative Change (Incorporation of indicator light list)

Origin: Detail Specification Requirement, and R.F.C. No. 3-16-36

Reason for Change: Revision to CCP No. 210A, and to include the effects of CCP No. 210B.

Description of Change:

Page 81, Paragraph 3.16.11.3 INDICATOR LIGHTS:

Delete the following from the end of paragraph:

"(Reference Figure 3.16- )"

Page 81, Add the following paragraph after paragraph 3.16.11.3:

"3.16.11.3.1 INDICATOR LIGHT LIST: The following indicator lights shall be installed:

<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Color</u>	<u>Cap</u> <u>Dim-</u> <u>ming</u>	<u>Elec-</u> <u>trical</u> <u>Dim-</u> <u>ming</u>
<u>FLIGHT ENGINEER'S STATION</u>				
6	Trans. Pump Low Press. (Fuel Sys)	Amber		X
12	Booster Pump Low Press. (Fuel Sys)	Red		X
4	Valve Open (Fuel Sys)	Red		X
10	Valve in Transit (Fuel Sys)	Blue		X
4	Emergency Valve Closed (Fuel Sys)	Green		X
4	High-Low Pressure (Hyd. Sys)	Amber		X
2	Supply Pressure Low (Hyd. Sys)	Amber		X
2	Overspeed Trip (Freon Comp)	Amber		X
1	Low Air Flow (Air Conditioning)	Amber		X
1	L.H. Freon Fail (Air Conditioning)	Amber		X
1	R.H. Freon Fail (Air Conditioning)	Amber		X
1	High Altitude (Cabin Pressure)	Red		X
1	Fwd Fail (Air Conditioning)	Amber		X
1	Aft Fail (Air Conditioning)	Amber		X
2	Bus Off (D-C Power)	Amber		X
1	Charger Relay Open (D-C Power)	Amber		X
2	Bus Off (A-C Power)	Amber		X
1	Main Out (A-C Power)	Amber		X
1	Standby Out (A-C Power)	Red		X
4	Drive Malfunct (A-C Power)	Red		X
1	Conn. (A-C Power)	Green		X
8	Conn. Open (A-C Power)	Amber		X
4	Gen. Off (A-C Power)	Amber		X



<u>Quan</u> <u>Reqd</u>	<u>Description</u>	<u>Color</u>	<u>Cap</u> <u>Dim-</u> <u>ming</u>	<u>Elec-</u> <u>trical</u> <u>Dim-</u> <u>ming</u>
4	Gen. Overheat (A-C Power)	Red		X
1	Low Water Pressure	Amber		X
1(Dual)	Main Door Forward	Amber		X
	Main Door Aft	Amber		X
1(Dual)	Service Door Forward	Amber		X
	Service Door Aft	Amber		X
1(Dual)	Cargo Door Forward	Amber		X
	Cargo Door Aft	Amber		X
1(Dual)	Elec. Compt. Door	Amber		X
	Hyd. Compt. Door	Amber		X
1	L.H. Landing Gear Safety Pin	Amber		X
1	R.H. Landing Gear Safety Pin	Amber		X
1	Nose Landing Gear Safety Pin	Amber		X

PILOTS' INSTRUMENT PANEL

1	Essential Bus Failure	Red		X
1	Airway (Marker Beacon)	White	X	
1	Outer (Marker Beacon)	Blue	X	
1	Middle (Marker Beacon)	Amber	X	
1	Autopilot Trim Ind. "AP OFF"	Red		X
1	Autopilot Trim "Glide Path Armed"	Amber		X
1	Autopilot Trim "Auto Trim Off"	Amber		X
4(Dual)	Reverse Thrust-In Transit	Amber-Blue		X
4(Dual)	Oil Pressure Low	Red		X
	(Engine Overheat)	Red		X
1	Landing Gear Door Open	Red		X
1	L.G. Truck Position	Red		X
1	Gear Unsafe	Red		X
1	R.H. Main Gear Down and Locked	Green		X
1	L.H. Main Gear Down and Locked	Green		X
1	Nose Gear Down and Locked	Green		X
1	Instrument Power Failure	Red		X
1	Master Caution "Press to Test"	Amber		X
1	Yaw Damper Test, "HOLD"	Red		X
1	Yaw Damper Test, "READY"	Green		X

PILOTS' OVERHEAD PANEL

1	Stewardess Call	White		X
1	Stewardess Call Switch	Red		X
1	Rainclear "ON"	Blue		X
2	Pitot Heaters "ON"	Blue		X
2	L.H. and R.H. Landing Lights Ext.	Amber		X

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 210C

Page 3 of 3

<u>Quan</u> <u>Read</u>	<u>Description</u>	<u>Color</u>	<u>Cap</u> <u>Dim-</u> <u>ming</u>	<u>Elec-</u> <u>trical</u> <u>Dim-</u> <u>ming</u>
4	Engine Anti-Ice "CLOSED"	Amber		X
4	Engine Bleed Air "CLOSED"	Amber		X
1	High Duct Pressure	Red		X
1	Excess Heat (Anti-Ice Structure)	Red		X
1	Ice Signal Warning	Red		X
1	Anti-Ice "ON"	Blue		X
2	Anti-Ice, Closed Inboard	Amber		X
2	Anti-Ice, Closed Center	Amber		X
2	Anti-Ice, Closed Outboard	Amber		X
1	Malfunc Tail	Amber		X
5	Excess Heat Anti-Ice and Isolation	Red		X
1	Push for PA	Amber		X

FORWARD PEDESTAL

1	Nose Landing Gear, Anti Skid, Inoperative	Amber		X
1	Main Landing Gear, Anti Skid, Inoperative	Amber		X

PILOTS' GLARE SHIELD

4	Fire Control Switch Warning Lights	Red		X
2(Dual)	Agent Out (Fire Extinguishing Sys)	Red		X

AFT PEDESTAL

1	Public Address "PUSH"	Amber		X"
---	-----------------------	-------	--	----

Page 82, Delete paragraph number, RFC number and all reference to indicator lamps from page.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,320 DTD \_\_\_\_\_

CHANGE NO: 209

MODEL: (880) 22-2

TITLE: **Specification Administrative Change (Change jack pad adapters from AAF to MS-type)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **AAF Drawing No. H41B1287, for external fuselage and wing jack pad adapters, is obsolete and has been replaced by MS-33559.**

EFFECT ON WEIGHT \*

EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \* **None**

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: \_\_\_\_\_

NON-RECURRING: \_\_\_\_\_

TOTAL: \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, G.D., 9-1217A

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 209

Title: Specification Administrative Change (Change jack pad adapters from AAF to MS-type)

Origin: Convair initiated

Reason for change: AAF Drawing No. H41B1287, for external fuselage and wing jack pad adapters, is obsolete and has been replaced by MS-33559.

Description of Change:

Page 123, Paragraph 3.22.2 JACKING PROVISIONS:

Revise the last sentence as follows:

From: "External fuselage and wing jack pads shall incorporate an AAF Type fitting, on mating surface to ground jack assembly".

To: "External fuselage and wing jack pad adapters shall conform to MS-33559-Type II on mating surface to ground jack assembly".

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-003

DATE: \_\_\_\_\_

CUSTOMER: Delta Air Lines Inc.

MCL 10,370 DTD 7 January 1959

CHANGE NO: 208

MODEL: (880) 22-2

TITLE: Inertia Reels and Harnesses, Aerotherm, Installation of

ORIGIN: Delta Telecon, May to Harris, on 6 January 1959

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
Proposal "A" 0	Proposal "A" 0	Proposal "A" 0	Inch-Lb
Proposal "B" 3.0 lb	Proposal "B" 3.0 lb	Proposal "B" 2,556	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: \*  
None

\* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: \_\_\_\_\_

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Delta Air Lines Inc.  
Change No. 208

Page 1 of 2

Title: Inertia Reels and Harnesses, Aerotherm, Installation of

Origin: Delta Telecon, May to Harris, on 6 January 1959

Reason for Change: Customer request

Description of Change:

PROPOSAL "A"

Page A-12, APPENDIX I-C, FURNISHINGS:

Change the seventh and eighth items in the Description List as follows:

From: "2 Pilots' Safety Belts and Shoulder Harnesses  
1 Flight Engineer's Safety Belt and Shoulder Harness"

To: "2 Pilots' Safety Belts  
1 Flight Engineer's Safety Belt"

Change the ninth item in the Description List as follows:

From: "3 Inertia Reels (Pilot,  
Copilot and Flight Engineer)"

To: "3 Inertia Reels and Harnesses (Pilot, Copilot and Flight  
Engineer)"

Aircraft      Aerotherm  
Mechanics      Model 95"  
Inc.

Effect on Weight Empty: 0  
Effect on Balance: 0  
Effect on Performance: None



# CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION  
SAN DIEGO, CALIFORNIA

## COMMERCIAL CHANGE PROPOSAL

SPEC NO. 7D-22-003

DATE \_\_\_\_\_

CUSTOMER Delta Air Lines Inc.

MCL 10,317 DTD \_\_\_\_\_

CHANGE NO. 206

MODEL (880)22-2

TITLE Specification Administrative Change (provide assist ropes in flight compartment)

ORIGIN Convair initiated

REASON FOR CHANGE: To clarify the intent of the Specification

### EFFECT ON WEIGHT \*

### EFFECT ON BALANCE \*

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED

SPECIAL PROVISIONS

EFFECT ON PRICE PER AIRPLANE

RECURRING \_\_\_\_\_

NON-RECURRING \_\_\_\_\_

TOTAL \_\_\_\_\_

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.